

# Economic Review

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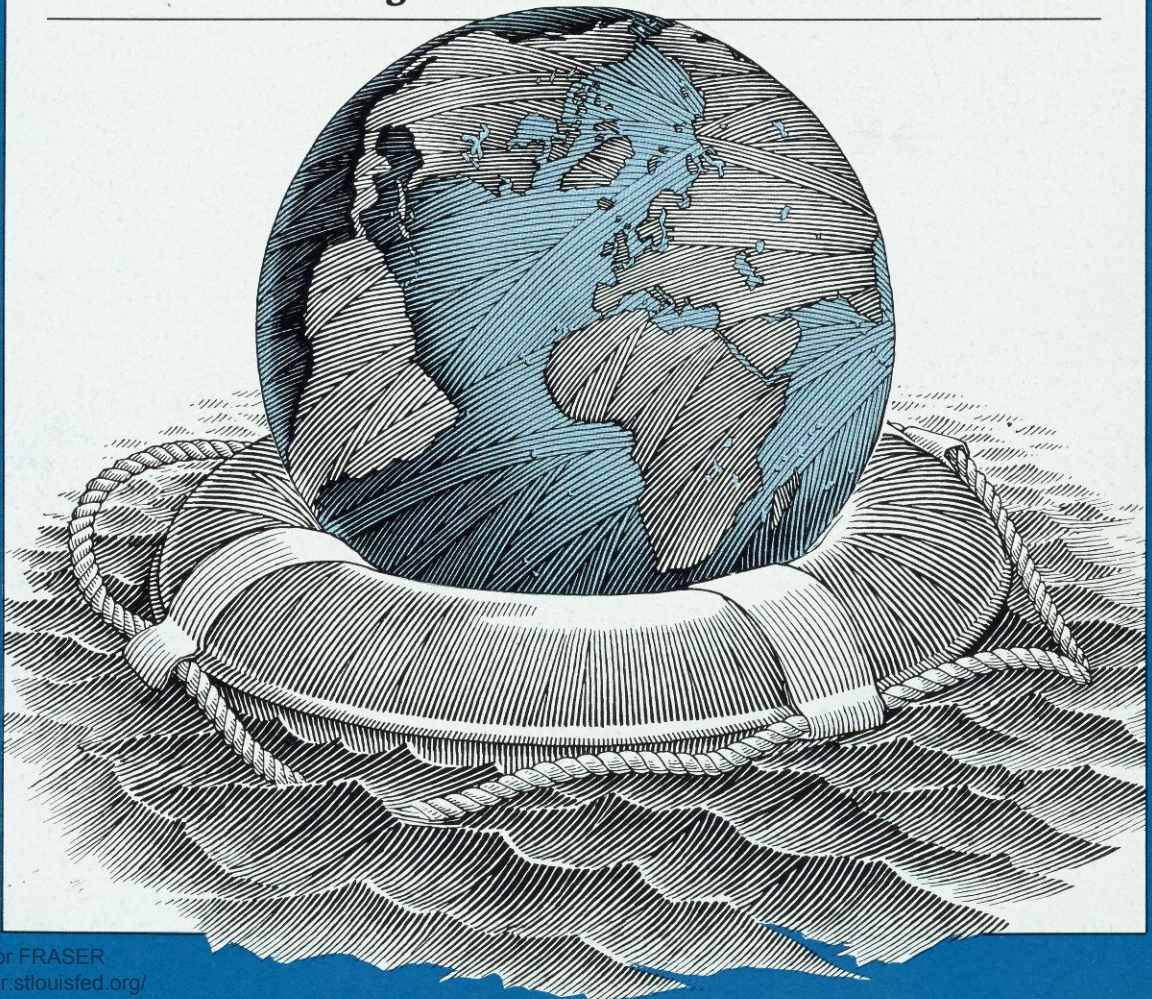
**Buffer Stock Money**

**COMMERCIAL BANKS**

**Declines in Profitability**

## INTERNATIONAL TRADE

**Stemming the Tide of Protectionism**



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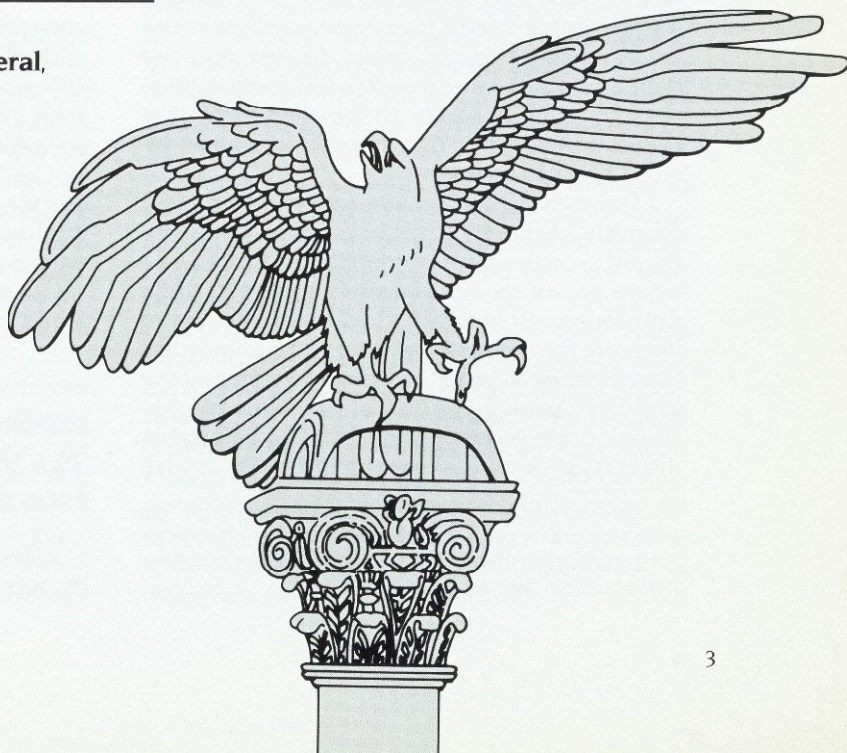
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# The Rising Tide of Protectionism

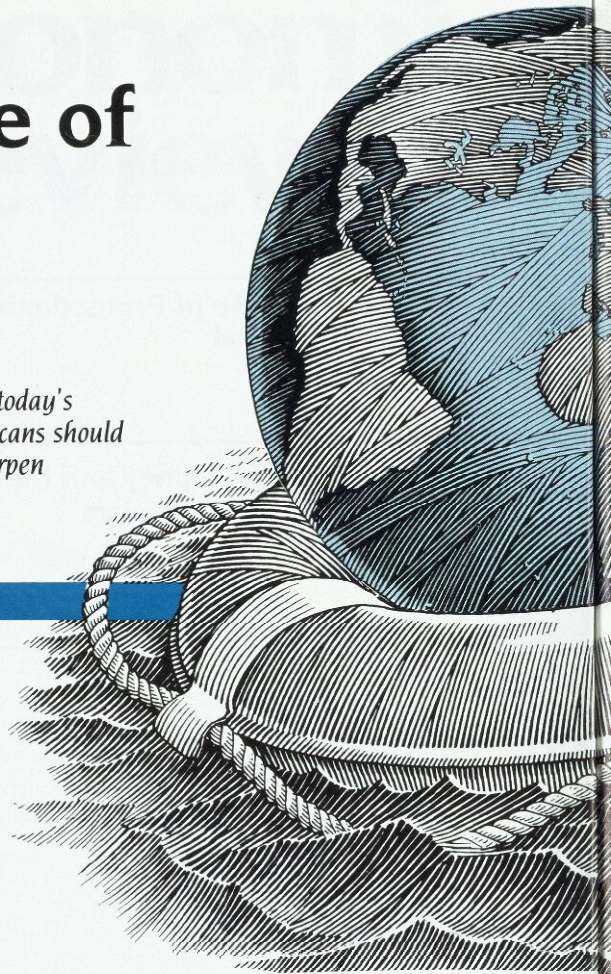
Robert P. Forrester

*Atlanta Fed President Robert P. Forrester examines today's rising tide of protectionism and concludes that Americans should regain their faith in the free market system and sharpen their ability to compete.*

The United States is in the midst of a transformation that might be called "reinternationalization." Through much of this nation's early history, Americans were traders intent on keeping doors abroad open for American products. As the country's frontiers expanded, however, we found ourselves rich enough in labor and resources to be self-sufficient. This advantage had the negative effect of making us somewhat complacent. We assumed that the rest of the world needed us more than we needed it. Only in the 1970s and 1980s, through the indelible impressions made by the rise and collapse of oil prices during the preceding decade and the ballooning of the trade deficit, did the U.S. business community return to the awareness that events outside our own borders resonate increasingly within them.

I believe reinternationalization holds great promise. In the short term, prospects for continued growth—both in the United States as a whole and in the Southeast—are pinned upon developments in international markets. In the long run, this intensifying interdependence has the potential to raise living standards for all the world's citizens. In the interim, though, the trade situation has given rise to some uncomfortable dislocations among domestic industries, and in

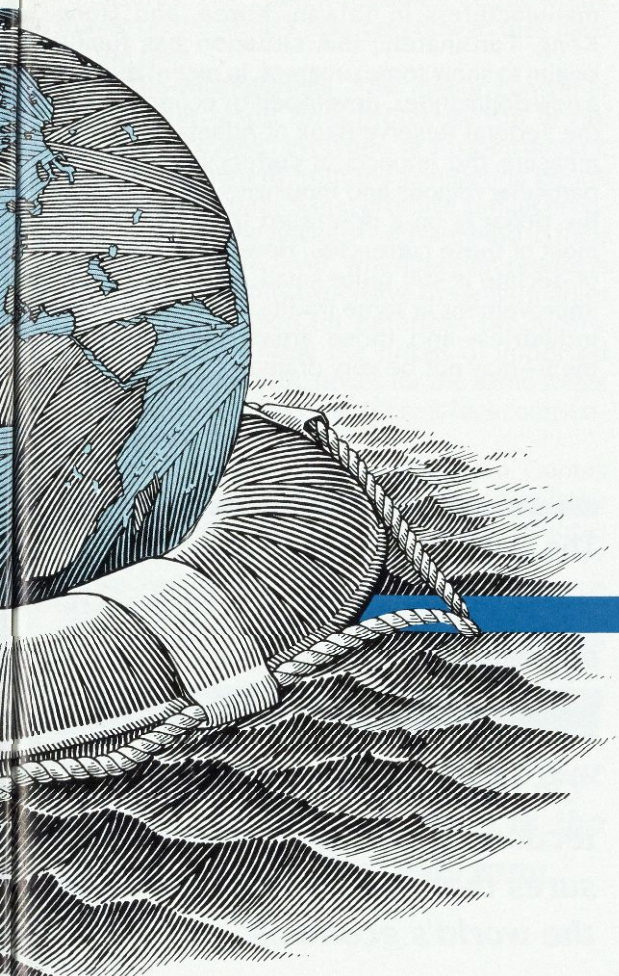
*The author is president of the Federal Reserve Bank of Atlanta. This article is based on a speech, "The Southeast in a Global Economy," delivered in April 1987 at the Southeastern International Trade Conference in Mobile, Alabama.*



response have come calls for protectionism. As disturbing as the sight of empty factories and idle workers may be, we must have the vision to look beyond temporary adjustments toward long-term advantages. Our hopes for the present and future could be dashed if we shirk the responsibility these benefits carry—the responsibility of defending free and open markets that we have traditionally borne and now must take up again in the face of a rising tide of protectionist sentiment.

## The Impact of International Developments

**Effects on the United States.** The growing importance of the international sector becomes



apparent in light of the short-term outlook for the United States. This year Gross National Product (GNP) should expand once again at a rate of 2.5 percent or even a bit faster. This forecast suggests the unemployment rate for 1987 will not fall significantly, since the number of new jobs will probably just keep pace with the number of people who want them. Inflation, however, will probably accelerate from last year's average pace of less than 2 percent as measured by the consumer price index to 4 or even 4.5 percent in 1987.

The higher prices in this forecast, which represent an even faster rate of increase than in 1985, are due largely to international developments. Both the stabilization of oil prices and the rise in other import prices, which were up 8 percent at the end of last year, will push price levels higher. The international sector is critical to the outlook for GNP growth as well. Foreign

trade is expected to provide the stimulus that will maintain our moderate growth rate. The other major components of GNP—consumption, investment, and government purchases—do not show much potential for strength.

An improvement in the U.S. international sector is likely for two reasons. One is the decline in the value of the dollar in foreign exchange markets. While the impact of the dollar's decline works with a lag, the dollar has been dropping for more than two years now and we are beginning to see a change. Exports began to pick up in real terms during the last three months of 1986 while imports flattened. In the first three months of 1987, real net exports (exports minus imports, adjusted for inflation) improved by \$13.8 billion.

The second impetus toward an improving trade balance is the fact that the United States cannot continue to increase its borrowing from abroad indefinitely. For some time we have been consuming, whether privately as individuals or publicly through our government, more than we actually produce domestically. The expansion of the federal budget deficit is particularly to blame for this situation. To meet the country's aggregate demands, we have been importing far more than we export and borrowing from abroad to finance these imports. Of course, this pattern cannot go on forever. Our creditors may become less willing to lend; in addition, debt service inevitably rises along

with the debt and becomes a burden. It now appears that the time has come to start repaying. So, while GNP or national output will grow at about the same rate in 1987 as it did last year, more of the increase will be exported and less will be available for domestic use. However, even if overall consumption does not increase much, gains in production to meet greater demand for American-made products should help to achieve the moderate rate of growth that has been predicted.

**Outlook for the Southeast.** The Southeast, like the nation, will feel the weight of international factors during the year ahead. Aside from responding to the general impact of the shift in the trade balance, the Southeast will experience some particular side effects from developments abroad. If the recent stabilization in energy prices is joined by more demand for domestic goods and commodities, those areas of the country most dependent on mining and manufacturing will benefit. These developments, which should foster a more balanced growth among economic sectors and regions of the country than has been the case in the last several years, would be welcome news to troubled parts of the Southeast. For example, stabilization of the energy sector would be especially important to Louisiana and parts of Mississippi, both of which suffered from last year's sharp fall in oil prices.

Aside from stimulating sales of domestic goods, a lower dollar should draw more visitors from other countries and precipitate more domestic travel by Americans. Florida attracts more overseas visitors than any other state and draws large numbers of Canadians as well. Tourism tends to stimulate demand for services and trade just as permanent population growth does. The continuing inflow of visitors contributes significantly to employment and personal income in Florida and is a major reason for that state's good record of growth.

Improvements in the national trade balance should spell good news for many southeastern manufacturers who have been grappling with import competition or difficulties in marketing abroad for the past few years. One particular problem that slowed improvement in many of the region's industries was the dollar's failure to depreciate against major foreign competitors such as Canada and the newly industrializing countries of the Pacific rim. Consequently, the Southeast's important forest products industry continued to be battered by the flood of Canadian softwood; the same has been true of

apparel makers who compete with clothing manufacturers in Taiwan, Korea, and Hong Kong. Fortunately, this situation has finally begun to show some progress. In recent months a new dollar index, developed by economists at the Federal Reserve Bank of Atlanta in part to measure the impacts of currency changes on particular regions and industries, suggests that the dollar is on a downward trend relative to most of these currencies. However, the margin of decline is still quite small; so the extent of improvement in some traditional southeastern industries—and those areas dependent on them—may not be very dramatic.

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## The Dangers of Protectionism

Because manufacturing in the Southeast remains troubled, it is tempting to try to prop up faltering industries and the communities that

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***"On the international stage, protectionism evokes retaliatory measures that could wreak havoc on the world's economy."***

depend on them. The Southeast, the rest of the nation, and even the rest of the world could end up much worse off, though, in the long run (and even sooner) if we opt for one of the quick fixes currently gaining support, namely, protectionism. This tactic could pose a serious threat, despite the degree of currency it seems to have gained recently among the American people and some of our leaders. Protective trade barriers affect the marketplace, the workplace, and the international stage. In the marketplace, protectionism raises consumer prices and limits choice. In the workplace, it creates distortions by attempting to save low value-added jobs at the expense of other, more productive jobs. On

the international stage, it evokes retaliatory measures, that, taken together, could wreak havoc on the world's economy now as they have in the past.

**In the Marketplace.** The higher consumer prices that result from protectionism in the marketplace affect everyone. In an open market, consumers benefit from the competing efforts of several companies that produce similar products, because the prices of each are held to their lowest profitable level. When foreign products are made artificially expensive by tariffs, market discipline is eased for American producers. Tariffs in effect raise the prices of imported goods, and domestic prices for the same items often rise as well because there is less competition driving them down.

Another import barrier is the quota. Quotas serve not only to raise prices but also to limit the variety of goods available. In the case of quotas like those imposed on cotton cloth imports or those "voluntarily" accepted by the Japanese auto industry, foreign manufacturers are able to take advantage of the basic law of supply and

***"The higher consumer prices that result from protectionism in the marketplace affect everyone."***

demand when supplies of their products are artificially limited. They often respond by narrowing exports to the more expensive items covered by the statutory limits. In this way they make up much of the difference and even increase profits. Domestically we are left with fewer, more costly selections. Even if importers do not make such substitutions, our consumer choices are still limited to some extent by quotas. The cumulative effects of eliminating competition through these and other types of non-tariff barriers like subsidies and local content requirements are considerable. A recent government study estimates that all existing tariffs and quotas cost the U.S. economy nearly

\$13 billion per year. Such a hefty amount might be worth paying if it could preserve American jobs. However, the effects of protectionism in the workplace show that this is not the case.

**In the Workplace.** It should be pointed out that we have in fact protected the textile and apparel industries with tariffs and quotas for some time. Yet protection did not check the loss of jobs. The apparel industry has always thrived on low wages because it is labor-intensive. In the past, apparel companies relocated from northern states to the South in search of cheap labor. Many of them are now repeating that process abroad, where relatively lower cost structures enable them to turn a profit. It is folly to think that stemming the tide of imports will also staunch the flow of U.S. multinational firms abroad, where they can earn higher profits by lowering their costs. Thus protectionism will not solve the problem of job losses in those industries in which our former comparative advantage has eroded.

If we want to keep factories at home, the textile industry's approach is the best example to follow. By substituting capital for labor, producers of fabric and carpet were able to turn record profits last year. Not every industry lends itself as readily to automation, but many industries should be able to apply technological advances more effectively than in the past. Automation will not save jobs, of course, since more efficient manufacturing processes need fewer workers to produce the same output. Those left, however, can claim higher wages because they are more productive. As for those displaced, other remedies exist that are less costly—and dangerous—than protectionism, and I will discuss some of these later.

Another employment consideration that may be overlooked is that protecting jobs in one industry can lead to losses in another. For example, an estimated 14,000 retailing jobs would have been lost in the South alone if President Reagan had not vetoed the 1985 textiles and apparel trade bill. By blunting competition, tariffs cause prices to rise and so hurt retailers. From the viewpoint of the larger economy, then, protectionism is counterproductive. Aside from costing at least as many—and probably more—jobs than it saves, protectionism robs the American economic system of one of its great advantages: the continuous process of change that makes industry responsive to consumers' needs. By keeping capital and labor resources in noncompetitive industries that survive only because they are propped up by trade barriers,

protectionism stifles the creation of potential new firms, industries, and jobs.

**On the International Stage.** Protecting jobs and whole industries from import competition, however, is not the only rationale for protectionist tactics. Some advocates feel these measures are needed as a bargaining chip to open foreign markets for U.S. exports. They point out that Japan, Taiwan, and the European Economic Community have their own guidelines which pointedly discriminate against our products. Before capitulating to righteous indignation, however, we should examine our own practices. American tariff rates are on average somewhat lower than those of our trading partners, but these duties are unevenly applied from sector to sector. Apparel products are protected at an effective rate three to four times as high as the average U.S. tariff, for example. U.S. farm products are also heavily subsidized. Other countries that export such agricultural products might well claim they are at an unfair disadvantage against U.S. competitors in American markets because U.S. farmers are so heavily—albeit indirectly—protected. What is more, the United States maintains a range of non-tariff barriers in addition to these other protectionist measures, including quotas, licensing requirements, safety inspections, “buy-American” provisions, and variations on these themes.

Such trade-distorting practices can lead to great costs on the international market, where protectionism guarantees more protectionism. This tendency arises from both internal and external dynamics. Internally, the American political process is such that when the pet industry of one congressional representative is protected, industries with political clout in other areas begin clamoring for similar preferential treatment. The great disaster of the Smoot-Hawley tariff in 1933 came about as vested interests were added to the list in just this way until tariffs in general ended up at over 50 percent on an ad valorem basis.

The inflexibility of achieving protection through legislation also presents a problem. Even if the country changes its mind, it is very difficult to get a law off the books. Once it is passed, consumers and manufacturers are stuck with it for a while.

Externally, protectionist measures are almost sure to provoke retaliation. In the recent confrontation between the United States and Canada over lumber, we saw clear examples of this process. If the United States had imposed a duty on Canadian wood, the Canadians were

prepared to tax feed corn accordingly. In attempting to help one industry, another type of producer entirely removed from the original dispute was threatened. The Smoot-Hawley tariff helped tip the world toward just such a spiral of tit-for-tat maneuvers. The end result was the collapse of world trade and a lengthy depression. Do we really want to retrace that unhappy course? Surely this country has moved too far toward internationalization to fail to learn from past mistakes.

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## Policy Recommendations

Arguments for the benefits of protectionism wear thin when viewed from an overall economic perspective. Protectionism cannot save jobs; it costs jobs in non-protected industries and prevents creation of new jobs by robbing resources from potential new industries. Protectionism is expensive to the consumer and,

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***“Protectionism cannot save jobs; it costs jobs in non-protected industries and prevents creation of new jobs by robbing resources from potential new industries.”***

perhaps worst of all, spreads like a communicable disease through the international business community. For these reasons protectionist barriers should not be considered viable instruments of international economic policy. Instead, policymakers need to do precisely the opposite and, in concert with our trading partners, push to diminish trade barriers further.

It is critical to continue expanding our vision to include all the opportunities held out by the evolving international order rather than to overreact to short-term imbalances. Since the end of World War II, the United States has encouraged free trade as the sound economic basis for higher living standards in the rest of the



world and here at home. That farsighted strategy has contributed to forty years of relative peace. In no small way this peace is related to a worldwide standard of living much higher than most people would have predicted at the end of World War II. The spirit of cooperation rather than confrontation should continue to shape U.S. relations, not only with former enemies but also with the newly industrialized countries.

That does not mean we should forbear from calling on Taiwan and Japan, for example—two nations with extraordinarily high trade surpluses and substantial import barriers—to lower the protective walls that make it impossible for many of our nation's goods and services to penetrate their markets. Nor should we refrain in the upcoming round of GATT (General Agreement on Tariffs and Trade) talks from pressing for the general agreement to be extended to cover service industries like insurance, hospital management, and data processing—potentially some of America's most profitable exports. With direction from GATT and continued pressure

***"It may be that our loss of competitiveness is due more to our failure to understand others than it is to inefficient production and lack of quality."***

from the United States, intellectual properties also could be better protected. Earnings from American research and development efforts—an extremely valuable and undercompensated export—just like earnings from books and musical compositions, ought rightly to be returned to us. However, these pressures should be exerted through the skillful dialogue of negotiations, not through the monologue of protectionism. Through persuasion, the United States can convince its trading partners to assume more responsibility for keeping the exchange of goods and services, together with labor and capital, as unrestricted as possible and thus remove at least some of the burden from us.

Aside from taking direct steps toward open markets, foreign governments could adjust their domestic economic policies. In particular, other advanced industrial economies need to rely less on exports and more on domestic demand. West Germany could follow Japan's example and stimulate its economy by accelerating tax cuts and implementing a generally more expansive fiscal policy. Not only would fiscal stimulus relieve the high levels of unemployment now prevailing there, but it would also make more money available for consumption of both imported and domestically manufactured goods.

Though Japan and West Germany have been criticized for dragging their feet on easing fiscal policy, Americans, too, have been far too slow to correct intemperate fiscal policies that have contributed to the very problems the protectionists purport to address. Government borrowing to finance the deficits of the early eighties pressed beyond the ability of American citizens, with their relatively low rate of savings, to carry the debt. Resulting deficits pushed interest rates to a level that made government securities attractive to foreign investors. The subsequent rise in demand for dollars to buy our dollar-denominated assets eventually made our currency so expensive relative to others that our goods lost price competitiveness on foreign markets. To maintain the momentum that has been building toward a turnaround in international trade, the United States must continue its attack on federal budget deficits.

Clearly, many of these recommendations must be implemented at the federal level. Education, however, is one means by which state and local governments can help their regions' economies adapt to competition rather than avoid it. From elementary and high schools to colleges and on into the business community, Americans must become more familiar with other cultures, learn to speak the languages of foreign purchasers, and interpret their unspoken signals. This familiarity would translate into greater sensitivity to foreign markets and would allow the United States to sell as aggressively abroad as we do at home. Our experience in marketing psychology should make it obvious that a product's appeal to overseas consumers is affected by subtleties of local taste and custom. Yet we persist in remaining international illiterates, paying much less attention to understanding foreign cultures than foreigners pay to investigating ours. It may be that the loss of our competitive edge is due more to our

failure to understand others than it is to inefficient production and lack of quality. Finally, legislative bodies could best show their concern for workers who have lost jobs in noncompetitive industries by directing funds toward retraining them. Those parts of the Administration's trade bill that called for programs to assist dislocated workers, including farmers, and proposed a job-training program to help disadvantaged youths were moves in the right direction.

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## Conclusion

The protectionist sentiment abroad in America today seems to reflect a crisis in confidence

and not a crisis in trade. Do we really believe that after leading the world's postwar recovery by means of its ingenuity and adaptability, the American business community, if unaided by protection from its government, will collapse rather than face the challenge of competition? Competition is the essence of the free market and of our system of government. It is probably our favorite leisure pastime—it is something we Americans do well. Let us not fear that we will fail in this moment's challenge any more than we have in the past. Economic forces, especially the exchange rate realignment, are already at work to level the playing field of international trade. It is time to take the field and do what we do best: size up the opposition, devise a strategy, and come out ahead.



## "Buffer-Stock" Money and the Transmission Mechanism

by David Laidler

*Economist David Laidler discusses the buffer-stock approach to monetary economics and presents its cautionary implications for policy.*

Though not unknown, the topic of this lecture is not fashionable in American economics.<sup>1</sup> The "buffer-stock" approach to monetary economics has conventional enough foundations, but it takes a couple of particular turns that differentiate it both from modern new-Classical macroeconomics and the more traditional Keynesian alternative. In each case, however, the turn in question seems to me to be an empirically fruitful one. It would not be appropriate to turn this lecture into an exercise in abstract model building, and I shall not therefore try to establish by rigorous argument the logical coherence of the conclusions I shall discuss. Rather I shall sketch an overview of the buffer-stock approach as I see it, indicating where it is identical to conventional theorizing and where it differs. I shall pay particular attention to issues

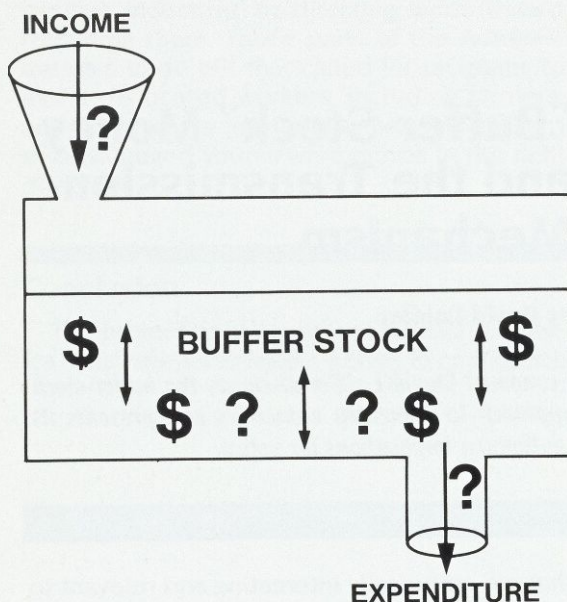
*This article is the text of a presentation given in November 1986 as part of the Atlanta Fed's Distinguished Lecturer Series. The author is a professor of economics at the University of Western Ontario, president of the Canadian Economic Association, and a fellow of the Royal Society of Canada. He is currently doing research on the history of monetary economics.*

that are empirically interesting and relevant to policy when viewed from the buffer-stock perspective. In short, though I shall not attempt to prove to you that this approach is correct, I shall try to persuade you that it is worth serious attention.

Having claimed empirical content for the approach, my first step in setting it out must be to draw attention to a question that it does *not* answer. The approach has nothing to say about why that complex of social institutions which we call the monetary system exists. It begins, not by explaining them, but by describing them. No doubt this is a deficiency, but we do have to start somewhere with our economic theorizing. Economists have no qualms about taking the existence of such institutions as property rights, law, and government for granted when they begin their work, and the monetary system is surely an institution on the same level as these. It would be nice to be able to explain its existence, but our inability to do so should not prevent us from addressing more tractable problems. Hence, though I note that the buffer-stock approach does not deal with these issues, I see no reason to apologize for this failing.

The buffer-stock approach, then, begins with the observation that, in the world we inhabit, economic activity is coordinated by monetary exchange among agents—consumers, producers, workers, employers, savers, and investors—separated over space and time. Though

## A Simplified View of the Buffer-Stock Approach



*The amount of buffer stock held in reserve by any individual depends on the degree of uncertainty about income and expenditure.*

we continually speak of the United States as a "market economy," we argue by analogy when we do so. To an economic theorist, a market is a place where agents come together to trade with one another, a place where each one of them can obtain complete and accurate information about the prices of all the goods and services that interest them before making any commitments as to production or consumption plans, and also a place in which the actual exchange of inputs and outputs can be carried out costlessly. When we describe the United States as a "market economy," what we are saying is that the outcome of the monetary coordination process for economic activity is similar to that which would be achieved in a market such as I have just sketched out.

Of course, radical critics of modern economic theory often reject this analogy outright, but I do not wish to be counted among them. The laws of supply and demand do seem to have considerable explanatory power over the world we live in, and it is hard to believe that they would have that power if it were not valid to argue that actual economies behaved to a considerable extent

"as if" they were coordinated by markets. Nevertheless, if monetary institutions are alternatives to markets, we should be particularly wary of arguments by analogy with a world in which monetary institutions do not exist when we come to study the monetary system itself. What I specifically mean by this will, I hope, become clear as this lecture proceeds.

## The Demand for Money

Consider a typical agent carrying on economic activity in a world characterized by monetary exchange. If this agent is a household, it will supply various productive services to firms, obtain income from these transactions, and use that income to obtain goods and services to consume. The transactions here will not, of course, be by barter. Income is paid out in money, and goods are bought with it. Furthermore, because the timing and amount of both income and expenditures is never quite certain, it will pay this typical household to keep on hand a certain stock of money to tide it over unexpected discrepancies between the two flows. A buffer stock of money enables plans about expenditures to be insulated (to a degree) from surprises about receipts and enables spur-of-the-moment decisions to be made about expenditures even when the timing of receipts would not permit such expenditures. Nor is this line of argument confined to the household. Firms cannot plan their sales and purchases precisely either as to timing or amount, and also find a buffer stock of money indispensable to their smooth functioning. This is not to say that money is the only means available of coping with such problems. Readily available lines of credit, not to mention stocks of other liquid assets, and indeed inventories of goods, can and do also function as buffers. However, the analysis that follows requires not that money is the only buffer stock in the economy, but only that it is an important one.

There is of course nothing new here. All I have done is briefly state the basis of modern approaches to the "transactions/precautionary" demand for money. I have said no more than that in a world in which the timing and amount of payments and receipts is less than certain, agents will find it convenient to hold some of their wealth in the form of money balances.<sup>2</sup> They will do so because holding money enables

them to mitigate the consequences of uncertainty for their ability to carry out their plans. In a true market economy, where all could make arrangements to deal in pre-planned amounts at known prices for everything that concerned them, there would be no need for money, because there would be no uncertainty about payments and receipts. These would be fully coordinated in advance before production and consumption were undertaken. Though this argument too is commonplace, when we put it together with a third idea, also uncontroversial among economists, and bring it to bear on theorizing about money, the buffer-stock approach begins to take a turn that differentiates it from more conventional treatments of monetary issues.

The third idea in question is that in a world in which agents are not presented gratis with all the information they need to make their plans, information itself is an economic good. We should therefore think of agents as being able to gain knowledge by devoting time and trouble to its acquisition, and we should also think of them as doing so up to the point at which the subjectively perceived marginal value to them of acquiring more of it is just counterbalanced by the marginal costs involved in that acquisition. Specifically, we should think of households and firms as being able to reduce the amount of uncertainty they face about their future patterns of payments and receipts by devoting resources to investigating the factors upon which they depend. But, of course, the benefits to be obtained from such research will come in the form of reduced costs arising from the unexpected disruption of plans. We have already seen that holding buffer stocks of money is also a means of reducing such disruption. Hence we must conclude that to devote wealth to money holding is, for the individual agent, an alternative to devoting it to the production of information.<sup>3</sup>

The implications of this argument are of profound importance for the study of macroeconomics. The last decade or so has seen this branch of our discipline subjected to the so-called "new-Classical Revolution," whose very essence has been to argue that macroeconomic problems must be analyzed using economic models in which agents are always in equilibrium in the sense of being able to execute their plans, and in which those agents base their plans upon all economically available information. When they are put this way, the buffer-stock advocate can have no quarrel with new-Classical prescriptions for the construction of

economic models. However, the actual way in which the pioneers of this approach have translated their principles into practice is a different matter, for they interpret them in a very special way. Moreover, it is the special nature of the interpretation in question which gives new-Classical economics its particular character.

The new-Classical models of, for example, Robert E. Lucas (1972), Thomas Sargent and Neil Wallace (1976), or Robert J. Barro (1978), to cite three key contributions to this body of thought, assume not only that all agents execute their plans, but that those plans are coordinated by a set of market-clearing competitive prices at which all trade takes place. Furthermore, agents' access to information is such that though they are deprived of knowledge of the prices of the goods they plan to purchase at the times at which they consummate their sales, they nevertheless know enough about the processes determining those prices to ensure that their receipts from sales are just sufficient to enable them to make the market-clearing volume of purchases when the moment comes for them to buy. They know all this despite the fact that they *do* make errors in forecasting buying prices. In effect, in these models, information is assumed either to be available to agents at zero marginal cost (in which case they use it in the formation of expectations, which also impose zero marginal computational costs upon them) or else to be completely unavailable.<sup>4</sup>

It should be apparent from the earlier discussion that, in the buffer-stock approach, the gathering and processing of information are thought of as being subject to rising marginal cost, and that, for the individual agent, money holding is viewed as a substitute for devoting resources to such activities. Thus, in a monetary economy, "all economically available" information is unambiguously less than "all available" information. Furthermore, if the agent we are considering is a firm, it needs information for activities such as setting the price of output, making wage offers to employees, and so on. Since money holding mitigates the consequences of making mistakes here, we should expect money wages and prices to be set on the basis of less than "all available" information and, hence, sometimes to take values that fail to equate supply and demand. Since it is costly to vary prices, and since money holding mitigates the costs of trading at prices that represent unequal current supply and demand, we might also expect money holding by firms to be associated with less frequent variations in

prices than in a market of costlessly variable prices arrived at "as if" at the will of a Walrasian auctioneer.<sup>5</sup>

In short, to use economists' jargon, the buffer-stock approach to monetary economics argues that the twin assumptions of "clearing markets" and "rational expectations" (as the latter are actually implemented in new-Classical economics) are inappropriate bases for dealing with macroeconomic issues. It does so because the interaction between market uncertainty and money holding runs in both directions. Uncertainty causes agents to hold money, but the very fact that doing so protects them from its consequences also helps to ensure that the uncertainty in question persists. The first argument is quite standard, but the second less so. Even so, the first argument, refined along well-known lines, leads to quite conventional conclusions about agents' demand for money being a demand for so-called "real balances," that is, money measured in units of constant purchasing power. The amount of protection that a given amount of nominal money will provide against uncertainty about future fluctuations in real conditions of supply and demand will vary in direct proportion to the average price level at which transactions are carried out. If that price level changes by a certain amount, then the typical agent will have to make an equiproportional adjustment in his money holdings in order to obtain the same degree of insulation against unexpected shocks as he had before.

In saying that the demand for money is a demand for "real balances," the buffer-stock approach is saying nothing which differentiates it from other approaches to modelling the demand-for-money function; nor is there any novelty in anything else that it says about the nature of the demand for money per se. The individual agent might be expected to make do with smaller real balances on average as the cost of holding them (as measured by some nominal interest rate) increases. He might also be expected to hold more of them as the amount of his real wealth increases, and this for two reasons. Not only does an increase in wealth mean that the agent has more resources available for asset holding in general, so that some of them might be expected to be devoted to money in any event, but as an agent's wealth increases, so might the scale of his market transactions. If exposure to uncertainty about the volume of payments and receipts increases with the scale of market transactions, then the amount of work

that an agent will require his money holdings to perform will also increase.

Thus, when the price level, the interest rate, or his wealth varies, the typical agent will want to eliminate the discrepancy to which this gives rise between his actual and desired money holdings. He can make that adjustment only by temporarily altering his rate of flow of expenditure on goods, services, and assets other than money. A firm or a household seeking to build up a cash balance to a higher desired level will cut down its purchases and attempt to increase its sales and vice versa; the particular items that will be subjected to variations in their supply and demand here will, of course, vary from agent to agent, but the same simple principle will be at work in each case. In short, for the individual agent, a discrepancy between actual and desired money holdings will set up a real-balance effect on expenditure flows, both on currently produced goods and services, and also on the acquisition of other assets. However, since it is

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***"Uncertainty causes agents to hold money, but the very fact that doing so protects them from its consequences also helps to ensure that the uncertainty in question persists."***

the essence of a buffer stock of money that it be allowed to vary over time about some planned average value as it absorbs unexpected shocks, responses here will not be rapid. The typical agent will make a conscious effort to adjust his money holdings by changing his market activities only when those holdings persistently take an average-over-time value that is "too high" or "too low."<sup>6</sup>

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## **The Transmission Mechanism**

Economists study the demand for any item in order to be able to make predictions about changes in its supply. In the case of money, this does indeed mean that the purpose of studying

the demand for money, which was the subject of the previous section of this lecture, is to enable us to discuss the consequences of changes in the supply of money. Without a theory of the demand for money, one cannot discuss monetary policy in a coherent fashion, and a good criterion by which to judge any approach to theorizing about the demand for money (though not the only one, of course) is how helpful it is in throwing light on policy issues. The questions that arise in this context fall into two categories. Some of them concern the ultimate effects of changes in the quantity of money, and some concern the processes whereby those ultimate effects are brought about; they concern, if you like, the equilibrium consequences of monetary policy and the transmission mechanism whereby the economy moves towards its final equilibrium.

Now knowledge about the demand for money is necessary to enable us to make predictions about the effects of monetary policy, but it is not

***"If the price level changes . . . then the typical agent will have to . . . adjust his money holdings . . . to obtain the same degree of insulation against unexpected shocks."***

sufficient. There is not space here to discuss the whole of macroeconomic theory, and I hope that a few brief assertions will suffice to put what I have to say about buffer-stock money into a broader macroeconomic context. It is my judgment that, over the long run, the levels of real income and employment in the economy are determined largely independently of monetary policy, and that, in the wake of monetary disturbances, the economy will tend to return to values of these variables given by supply-side factors. Similarly, I would argue that the real rate of return on capital in the economy is supply-side determined, and that the nominal interest rate varies with this real rate of return, suitably adjusted for the expected inflation rate. These are very "monetarist" judgments that not everyone will share; so let me add immediately that, although in the following discussion I will argue

"as if" they were correct, much of what I have to say about the buffer-stock approach to money retains its validity in the context of other ways of looking at macroeconomic phenomena.

Be that as it may, these assertions imply, crucially, that everything upon which the demand for money depends, except the general price level, is determined independently of the behavior of the money supply in the long run. Hence, only the price level is ultimately free to vary in order to return the supply and demand for money to equilibrium after a change in the quantity of money. Moreover, since the demand for nominal money is proportional to the general level of prices, a given change in the level of the money supply will cause an equiproportional change in the price level. Also, in the presence of an ongoing rate of monetary expansion, prices will rise at the same rate (minus an allowance for the effects of ongoing real growth on the demand for money); hence a given change in the monetary expansion rate will change the inflation rate by an equal amount.<sup>7</sup> These, however, are the ultimate effects of monetary policy, and what I have said about them is neither new nor very controversial; but how are they brought about? I would claim that it is here that the buffer-stock approach has something useful to tell us.

To understand the contribution that the buffer-stock idea makes to the analysis of the transmission mechanism, it is helpful to contrast its implications with those of other approaches to macroeconomics. Consider first the "new-Classical" macro model. As is well known, new-Classical macroeconomics distinguishes sharply between the effects of "anticipated" and "unanticipated" changes in the money supply. The former are said to affect only the general price level, taking it immediately to its new, long-run equilibrium value. The latter affect both prices and quantities because, it is argued, agents operating in particular segments of the economy, seeing the money prices of what they have to sell varying, mistake these changes for relative price changes and respond to them. Once such confusion is removed, so are the quantity effects (except to the extent that erroneous investment decisions have been made in the past in response to price confusions and distort the economy's current capacity to produce goods and services relative to what it otherwise would have been).

On the matter of how the effects of monetary changes on the price level are brought about, new-Classical macroeconomics is totally silent.

Prices move to keep markets in equilibrium at all times, we are told, but who moves them, and how they know what values to move them to, remains a mystery. Perhaps in the case of anticipated changes in the money supply, price-setting firms know enough about the structure of the economy that they immediately and costlessly calculate the changes that they must make to their own prices in order to do their part to maintain equilibrium between the supply and demand for money in the aggregate economy. And perhaps in the case of unanticipated changes, each firm, though misinformed about the state of its own market (and hence undertaking an output response along with a price response) nevertheless knows enough about every other firm's misinformation for the collective outcome of their pricing decisions to be a price level change which (making due allowance for the output change) still maintains equilibrium between the supply and demand for money. In either event, as far as new-Classical macroeconomics is concerned, the "transmission mechanism" linking monetary changes to the price level is an unanalyzed but purely psychological phenomenon operating in the minds of extraordinarily well-informed marketing executives.<sup>8</sup>

The root of this weakness in new-Classical economics is, of course, its insistence on modelling the consequences of monetary changes "as if" they took place in a market economy of the type briefly described at the beginning of this paper, in which there would be no role for money to play in the first place. The buffer-stock approach has more to say about the transmission mechanism, precisely because it takes note of the fact that price stickiness and imperfect information are inherent properties of an economy characterized by monetary exchange. In this respect it is similar, though not, as we shall see below, identical to traditional Keynesian macroeconomics. It observes that, in such an economy, the first manifestation of an increase in the money supply will be a preponderance of agents finding themselves, on average, with too much money on hand, and that their response to this state of affairs will be to increase their rate of flow of expenditures on goods, services, and other assets including financial assets. It further notes that, if the money supply of the economy they inhabit is exogenously set by monetary authorities, then what each individual thinks can be accomplished by such means, namely a reduction in his cash holdings, cannot be accomplished by all agents at the same time. At first, therefore,

agents will pass excess money to one another like the proverbial "hot potato".

Only as the expenditure flows thus set in motion cause changes in the variables upon which the demand for money depends will they be dampened down. Interest rates will be pushed down as agents try to acquire bonds with their excess cash, and output will increase, both as lower interest rates have their own effects on demand and as direct expenditure effects of excess money make themselves felt. In due course, increased demand for goods and services will put pressure on input markets, not least the market for labor, and money wages and prices will begin to rise. All of these effects will reduce excess money holdings, and the expenditure flows associated with them will be diminished. Ultimately prices (and money wages) will be high enough to absorb the increased money supply, interest rates and output will return to their long-run, supply-side-determined equilibrium values, and the mechanism just described will cease to operate.<sup>9</sup>

Now in contrasting this buffer-stock story about the transmission mechanism with its new-Classical counterpart, I do not mean to imply that the distinction between anticipated and unanticipated shocks to the monetary system is irrelevant to the former approach. On the contrary this distinction is one of the lasting contributions of new-Classical analysis to economics in general. The extent to which prices and interest rates, as opposed to levels of expenditure and output, will vary in response to an increase in the money supply (or to an increase in its rate of growth) will surely depend upon the extent to which those agents involved in the setting of goods and asset prices "anticipate" the change in question. However, because in new-Classical economics all prices are always free to vary, "anticipated" and "expected" policy changes are synonymous. The buffer-stock approach, stressing as it does the rationality of price stickiness in a monetary economy, forces its proponents to distinguish between anticipated and expected changes, and to take account of the fact that a price-setting agent must not only perceive and understand the consequences of a policy change (in which case it is "expected") but must also be free to act upon that information before a policy change can be "anticipated."

The implication of applying the "unanticipated-anticipated" distinction in the context of the buffer-stock approach, then, is not that a clearly announced and fully understood mon-



etary policy change will have no real effects. Rather, it is that the manner in which the effects of a policy change divide themselves up over time between real and nominal variables will depend upon the extent to which that change is understood to have taken place, and the extent to which contractual arrangements already in place permit agents to act upon new information. These conditions, however, are likely to vary from time to time and place to place; though the transmission mechanism of monetary policy can be described qualitatively along lines set out above, it is impossible to make any quantitative generalizations about its nature. The well-known proposition of Milton Friedman about the effects of monetary policy, namely that they are subject to "long and variable lags," thus follows naturally from the buffer-stock approach. Hence, the approach implies that monetary policy does have real effects, but immediately adds the qualification that the size and timing of these effects is sufficiently uncertain as to render it useless, indeed dangerous, as a stabilization device.

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## The Role of the Interest Rate

Now the account that I gave above of the transmission mechanism must have sounded very "Keynesian," stressing as it did the role of sticky prices in the economy, and yet the policy conclusion I have just stated is far from being "Keynesian," at least as that adjective is understood in North America. In fact, my analysis is not as inconsistent as it might appear at first sight, because there is one distinctly un-Keynesian characteristic to my description of the transmission mechanism. I likened money to the proverbial "hot potato" which no individual willingly holds, but which the economy as a whole must, and argued that newly injected money continues to influence expenditure flows until the price level moves sufficiently far to make agents willingly hold it. I have thus argued that the existence of a discrepancy between the quantity of money supplied and demanded is a critical and persistent feature of the transmission mechanism. An orthodox textbook Keynesian account of this mechanism has no more room for such a discrepancy than does a new-Classical model, though a Keynesian model rules out its existence by somewhat different means.

The key element here is the role played by the responsiveness of the demand for money to interest rates in maintaining equilibrium between the supply and demand for money in Keynesian economics. Financial markets are extremely flexible and quick to clear, and therefore (so it is argued) any incipient discrepancy between the quantity of money supplied or demanded must immediately move interest rates to values at which it is eliminated. Thereafter, the longer-term effects of a change in the quantity of money come about as a result of the private sector's response to the incentives to increase or lower spending implied by these new interest rates. As compared to a buffer-stock model, the Keynesian variant removes one important source of uncertainty about the detailed operation of the transmission mechanism; and in so doing it narrows the range of empirical questions that need to be asked about that mechanism to those involving the effects of interest rates on expenditure. Hence, a "Keynesian" can be more confident than a "buffer-stock" advocate of the possibility of learning enough about the quantitative nature of the transmission mechanism to deploy discretionary monetary policy usefully.

An argument to the effect that interest rates do not maintain perpetual equilibrium between the supply and demand for money is thus an essential component of the buffer-stock story about the transmission mechanism. It is important to grasp, therefore, that this argument does not depend in any way upon an implicit assumption that interest rates are a "sticky price" as that phrase is usually understood. What is at play here is a special case of a rather general proposition that arises from viewing money as a buffer stock, namely, that in a monetary economy, goods, services, and assets of all sorts are traded not directly against one another, but against money. Moreover, prices are stated in terms of money, and equilibrium emerges in a monetary economy as a result of price-setting agents in individual markets setting the money prices of whatever it is they deal in in order to maintain equality between the supply and demand for that specific item. This is true for every item traded in the economy except money.

Now, of course, for a monetary economy to be in equilibrium, the price level and the structure of nominal interest rates have to take appropriate values, but no one sets these variables with such an end in view. Dealers in goods and services are concerned to get the money prices of

individual items right, and dealers in financial assets, to get particular interest rates right, in the light of signals emanating from the particular markets in which they operate. Specifically, interest rates move in response to the supply and demand for credit, for what used to be called "loanable funds."<sup>10</sup> This is not to say that the flow supply and demand for credit is independent of the existence or size of discrepancies between the stock supply and demand for money; nor is it to say that for the system as a whole to be in full equilibrium, the supply and demand for both money and credit do not have to be equal. It is, however, to say that, out of equilibrium, the rate of interest will move in response to an excess supply of money in the economy only to the extent that this affects the supply and demand for credit, and that there is no reason to expect this change to be such as to eliminate immediately the excess supply of money in question.<sup>11</sup>

Having made this point, though, does it matter? A buffer-stock modeller and a Keynesian would both agree that an increase in the quantity of money lowers interest rates in the short run as a part of the transmission mechanism. Disagreement here seems only to concern the size of the effect. There is, however, a little more to it than that. The orthodox Keynesian model has the economy always "on" its demand-for-money function, so that all observed variations in the velocity of circulation, that is, in the rate at which money changes hands, should be explicable in terms of fluctuations in the variables (including interest rates) upon which the demand for money depends. Not so the buffer-stock model. Here, the economy's being "off" its demand-for-money function is central to the transmission mechanism, and, in addition to variations in the factors affecting the demand for money, variations in the quantity of money supplied can also affect the velocity of circulation. The implications of this last argument for empirical questions concerning the stability of the demand-for-money function, which is estimated using the quantity of money supplied to measure the quantity of money demanded, are as obvious as they are important.<sup>12</sup>

### Some Loose Ends

It should by now be apparent that the phrase "buffer-stock approach" is a label for a par-

ticular set of interrelated hypotheses about the way in which the macroeconomy functions in the short run, and in one lecture it is impossible to cover all aspects of so complicated a topic. Nevertheless, before concluding this discussion it is important to touch upon a couple of issues which undoubtedly complicate the application of the ideas set out above to any real world economy. These issues are familiar enough to anyone working in macroeconomics and may be expressed in two questions: "How exogenous is the money supply?" which is to say, to what extent is the money supply determined by external factors like the discount rate? and "How unique among the spectrum of assets is money?" I shall touch upon them in turn.

A *sine qua non* of the foregoing discussion is the proposition that, although the individual agent can get rid of excess money, the economy as a

***"The very existence of monetary exchange implies that the economy should be characterized by a certain degree of ignorance and price stickiness."***

whole cannot, and a more formal presentation of my arguments would be conveniently cast in terms of a model in which the nominal money supply is an exogenous variable determined by external factors. The real world, it may be objected, is not like that; the quantity of money is in fact an endogenous variable determined by the actions and reactions of banks, businesses, and consumers.<sup>13</sup> This is true, but it does not follow that buffer-stock analysis is irrelevant. That a variable is endogenous to the economic system does not also imply that it is completely passive. Whenever there exists some agent, say a central bank, which stands ready to buy and sell some other asset, say bonds or foreign exchange, in exchange for money at a fixed price, the equilibrium quantity of money will be demand-determined in full equilibrium. However, it does not follow from this that disturbances

to such an equilibrium cannot arise from fluctuations in the supply of money, or that discrepancies between the supply and demand for money will be costlessly eliminated by an immediate restoration of the money supply to its initial value.<sup>14</sup>

Thus, under an interest rate-pegging regime, money created in connection with the funding of either a government deficit or the satisfying of the private sector's demand for bank credit will surely come into circulation and exert an influence on expenditure flows. Even when the interest rate is pegged, the private sector does not transact with the banking system with the conscious intention of varying its money holdings. People borrow from banks to buy goods and assets, not to obtain money to hold, but money is nevertheless created as a by-product of such activities. In a fixed-exchange-rate, open economy, a surplus in the balance of payments

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***“The buffer-stock approach . . . predicts that systemic policies can indeed have real effects. However, it warns that their magnitude and timing are sufficiently uncertain as to render them positively dangerous.”***

caused by, shall we say, an increased foreign price level will increase both the domestic money supply and price level and, according to the buffer-stock approach, will do so by way of mechanisms of the type described earlier. Furthermore, an increase in the money supply arising from the creation of domestic credit must ultimately be offset by an equal and opposite movement of foreign exchange reserves, but such an increase is quite capable of influencing domestic variables as part of the short-run mechanism that shifts the balance of payments. In short, endogeneity of the supply of money certainly changes our view of the nature of the equilibrium relation between money and other variables, and complicates any account that we might give of the transmission mechanism, but it does not eliminate all scope for buffer-stock effects.

The same may be said about the effects of recognizing the non-uniqueness of “money” as a “buffer-stock” asset.<sup>15</sup> Of course other financial assets, not in and of themselves means of exchange, but readily and cheaply convertible into money, are held out of precautionary motives, and of course firms in particular hold inventories of all manner of inputs and outputs for similar reasons. The availability of such alternatives to money will presumably affect the equilibrium demand for it and indeed might make it possible to talk meaningfully of more than one monetary aggregate. Also, shocks to the system might well originate in the markets for these other buffer stocks, and we should be careful in their presence not to insist on a theoretically unique role for the money supply as a source of disturbances. Moreover, even when a change in the money supply is the disturbing factor under analysis, variations in stocks of these other assets will surely play a role in the economy's subsequent adjustment. That is to say, their existence affects the number of and type of shocks to which an economy might be subjected, and it will also affect the details of the transmission mechanism. None of this, however, means that changes in the money supply will necessarily cease to be important, or that buffer-stock analysis throws no light on their transmission mechanism.

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## Concluding Comments

The argument that I have advanced in this lecture is easy to summarize. I have claimed the very existence of monetary exchange implies that the economy should be characterized by a certain degree of ignorance and price stickiness. I have claimed this argument to imply in turn that the transmission mechanism for monetary policy involves a chain of causation that runs from discrepancies between agents' actual and desired money holdings to flows of expenditure on goods and services, thence to changes in interest rates, output, and eventually, as the only lasting consequence, to price level changes. I have contrasted this view with two undoubtedly more fashionable alternatives, suggesting that new-Classical economics has nothing to say about the transmission mechanism, and that orthodox Keynesian economics places undue emphasis on the behavior of interest rates in a

sequence of events otherwise rather similar to that suggested by buffer-stock analysis.

I have thus tried to show that the buffer-stock approach is the most plausible among available ways of thinking about an important class of monetary issues, and I have also suggested that its essential usefulness, though best seen in the context of a model with a clearly defined and exogenously determined money stock, is not destroyed as we move to a more complicated monetary environment. I have also referred, along the way, to certain policy implications of my arguments. I have drawn attention to the inherent variability of the transmission mechanism implied by buffer-stock analysis, showing that such analysis may underpin a case against attempts to use discretionary policy in order to influence real economic variables. It should be noted that this case is different from the new-Classical case against such measures. In new-Classical analysis any systematic policy, because it is "anticipated," will influence only prices, and steady money growth emerges as the best policy because it is the simplest. The buffer-stock approach distinguishes between "expected" and "anticipated" policies and predicts that systematic policies can indeed have real effects. However, it warns that their magnitude and timing are sufficiently uncertain as

to render them positively dangerous. Hence, it makes a much stronger case for steadiness in the conduct of monetary policy than does the new-Classical alternative.

Though I have put the above arguments to you because I believe them to be closer to the truth about certain important issues than currently available alternatives, let me nevertheless end this lecture with a warning. A priori plausibility does not make an argument right. Though theoretical exercises a good deal tighter than anything I have engaged in here do exist, and though empirical evidence bearing on the issues I have raised, and tending to favor the buffer-stock approach, is available, there is, in the current state of knowledge, ample room for reasonable people to disagree about the importance of the issues I have raised. I do not, therefore, ask that my listeners be convinced of the correctness of what I had to say. I shall have succeeded in my aims this afternoon if I have convinced some of you that the ideas I have discussed deserve your attention and consideration in the future as you think about monetary issues.

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*\*I am grateful to Michael Burns and Johan Myhrman for discussion of many of the issues dealt with here, and to Peter Abken, Russell Boyer, Joel Fried, and Peter Howitt for helpful comments on an earlier draft, but I do not wish to implicate them in any errors remaining herein.*

## Appendix: A Formal "Buffer-Stock" Model

A macroeconomic model incorporating the essential features of the analysis discussed informally in this lecture may be set out as follows. All variables except interest rates are measured in logarithms, and are defined as follows:  $y^*$  is the permanent, or full-employment equilibrium, level of real income;  $y$  is the transitory, or cyclical, component of real income;  $m$  is money and the subscripts  $s$  and  $d$  refer to supplied and demanded;  $\rho^*$  is the level of the real interest rate that is compatible with full employment equilibrium, the Wicksellian "natural" rate;  $\rho$  is the difference between the actual real rate of interest and its natural value;  $r$  is the nominal interest rate;  $p$  is the price level;  $E$  is the expectations operator;  $I$  represents information used in forming expectations; and the subscripts  $-1$  and  $+1$  represent a one-period time lag and lead respectively.

### THE MODEL

The Demand for Money

$$M_d = \delta_0 + \delta_1 y^* + \delta_2 y - \delta_3 r + p$$

The Nominal Interest Rate

$$r = \rho^* + \rho + (E p_{+1} | I) - p$$

The Real Interest Rate

$$\rho + \rho^* = -\gamma(M_s - M_d) + \rho^*$$

Output

$$y = \alpha_1(M_s - M_d) - \alpha_2 \rho$$

The Price Level

$$p = \beta y + E p | I_{-1}$$

Expected Inflation

$$(E p | I_{-1}) - p_{-1} = (E M_s | I_{-1}) - M_{s-1}$$

The above model is analyzed extensively in Laidler (1987), but the following observations upon its properties may be helpful.

(i) Though similar in some respects to an IS-LM model supplemented by an expectations-augmented Phillips curve, this model cannot be analyzed using the IS-LM framework. It is a *sine qua non* of the LM curve that the economy be "on" its demand-for-money function, and the presence of a discrepancy between the quantity of money supplied and demanded in this model means that this condition will hold only when the model is in full

equilibrium, and this discrepancy happens to take a zero value.

(ii) Though expectations about the money supply may be thought of as "rational," there is no requirement that this be the case. Moreover, and crucially, inflation expectations are based entirely on the expected rate of monetary expansion and therefore are only asymptotically rational in this model. This property, which may be defended with respect to the arguments about the costs of acquiring information set out in the text of this lecture, is crucial to this particular model's behavior.

(iii) There is, as noted in the text of the lecture, no particular reason to suppose that the coefficients linking aggregate demand or the interest rate to discrepancies between the supply and demand for money will remain stable and predictable over time in any real-world economy. Nor is there any reason to suppose that the coefficient linking the price level to the level of transitory income in the Phillips curve equation will be independent of the conduct of policy.

(iv) One may obtain a feel for the transmission mechanism of monetary policy in this model by noting that an unanticipated increase in the money supply will lead to a discrepancy between the supply and demand for money, and thus it will affect aggregate demand both directly and indirectly as it drives down the real rate of interest; this first round effect will put upward pressure on prices; all three effects will tend to diminish the discrepancy between money supplied and demanded; and a dynamic process, which will eventually restore the economy to full employment equilibrium, will be set in motion by the above effects.

(v) This model can incorporate a Keynesian theory of economic disturbances, since an increase in the marginal efficiency of capital will cause  $\rho^*$  to rise, and vice versa. The discrepancy between the demand and supply of money that this would cause will act as a stabilizing factor. The model could also be extended to include fiscal policy effects on aggregate demand.

(vi) The model yields, as a reduced form for the behavior of the real quantity of money in circulation, an equation of exactly the form frequently referred to as a "short-run demand-for-money function." In particular this equation has a lagged dependent variable on its right-hand side.

## FOOTNOTES

<sup>1</sup>Even so, let it be explicitly pointed out that the work of Bordo, Choudry, and Schwartz (1984), Carr and Darby (1981), and Gordon (1984) on the demand-for-money function, and Greenfield and Yeager (1986) on the role of credit markets in the money supply process are notable contributions to the literature of what I am here terming the buffer-stock approach.

<sup>2</sup>The genesis of modern work on this approach to modelling the demand for money is to be found in Patinkin (1965). The contributions of Miller and Orr (1966), Weinrobe (1972), and Gray and Parkin (1973) are also noteworthy in this context.

<sup>3</sup>There is, as was noted by Laidler (1974), a relationship between the information-economizing role of money discussed here and the similar function accorded to prices in traditional accounts of the virtues of market mechanisms. Both Peter Howitt and Peter Abken have drawn my attention to the fact that the arguments which I advance below about the incompatibility of the existence of money with models that describe what one might term a "full information" equilibrium for the economy also run strongly parallel to those advanced by Grossman and Stiglitz (1976). They assert that the very existence of a price system is incompatible with the assumption that agents have access to enough information to ensure that such a system can attain general equilibrium in the absence of an auctioneer.

<sup>4</sup>The class of models referred to here is criticized in more detail in Laidler (1982d), Chapter 3. Since that book was written, these models have begun to fall out of favor among economists because of the difficulties they have encountered with empirical evidence. As McCallum (1986) has noted, the choice now seems to be between "real business cycle" models, which maintain the new-Classical assumptions of clearing markets and rational expectations but accord no role to money in generating real fluctuations, and models in the tradition of Fischer (1977) and Taylor (1979) that base price stickiness on the existence of nominal contracts. Buffer-stock effects are, of course, quite compatible with the existence of nominal contracts, and models incorporating them are a particular subset of the general class of sticky price models.

<sup>5</sup>In the 19th century Leon Walras pioneered the economic theory of general equilibrium in which costs, outputs, and supplies in all markets are determined simultaneously.

<sup>6</sup>The relationship between the role of money as a buffer stock, and traditional analysis of real-balance effects is one of the topics explored in Jonson's seminal (1976) paper on this topic.

<sup>7</sup>It should be noted that, to the extent that the demand for real balances depends upon the expected inflation rate, periods of transition between one equilibrium inflation rate and another will be marked by a short-run tendency for the inflation rate to overshoot its new long-run equilibrium value.

<sup>8</sup>It has already been pointed out that traditional new-Classical analysis has tended to fall out of favor lately. Even so, the foregoing criticism of its treatment of the transmission mechanism is not directed at a straw man. New-Classical models still have an important place in the textbook literature, and as far as current research is concerned, real business cycle models, of the type pioneered by Kydland and Prescott (1982), deny a role to money in generating real fluctuations because their proponents believe all variations in the quantity of money to be readily and immediately observable. They therefore believe that such variations will be absorbed immediately in price level fluctuations induced by the expectational effects described in the foregoing argument. Thus, real business cycle models are vulnerable to the criticism that they treat the transmission mechanism linking monetary policy to the price level as a purely psychological phenomenon.

<sup>9</sup>The reader who finds algebraic analysis helpful might consult the appendix, where a typical model incorporating buffer stock effects is set out and briefly described.

<sup>10</sup>This matter is discussed at greater length in Laidler (1984).

<sup>11</sup>The reader who is familiar with Greenfield and Yeager (1986) will recognize the essential similarity between their argument and that sketched here.

<sup>12</sup>On this matter see the appendix.

<sup>13</sup>Rasche (1987) levels this criticism at a certain simple type of buffer-stock model.

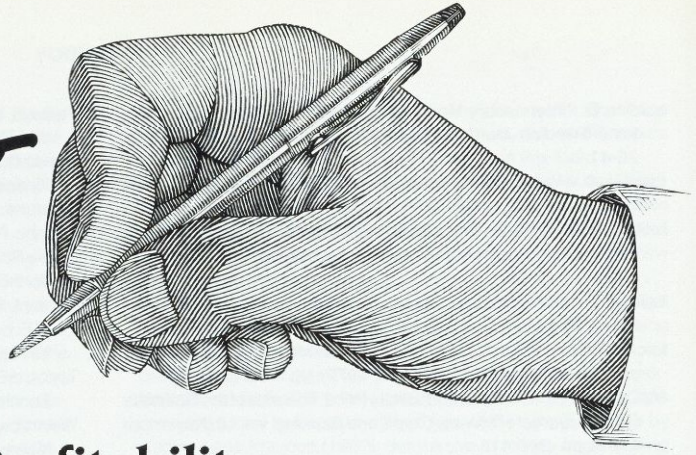
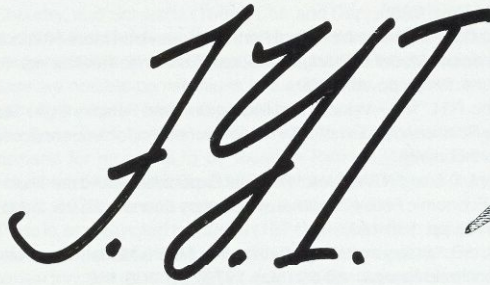
<sup>14</sup>These issues are discussed in some detail by Gordon (1984).

<sup>15</sup>Purvis (1978) analyzes the role of what might fairly be termed "buffer-stock effects" in a Tobinesque model involving a multiplicity of liquid assets.

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## Commercial Bank Profitability: Some Disturbing Trends

by Larry D. Wall

Banks of all sizes experienced falling profitability ratios in 1986, but small banks suffered most. Among banks with assets below \$25 million, 27 percent had negative net income. Whereas last year's profitability study indicated small bank problems might be confined to economically distressed areas of the nation, this year's results point to more widespread weakness for banks under \$25 million.

Profitability slipped for banks overall according to all three principal measures, return on assets (ROA), return on equity (ROE), and adjusted net interest margin. Declines appeared to lessen as bank asset size became larger, with the biggest banks registering the smallest drops. The least profitable banks in all size categories fared worst, however, suggesting that high rates of bank failure will continue.

Though southeastern banks maintained profit ratios higher than those of banks nationwide, profitability fell in the region as well (Chart 1).<sup>1</sup> Most of the loss in the Southeast is attributable to lower ratios in Georgia, where ROA dropped 0.12 percentage points, and in Louisiana, where it fell 0.42 percentage points. Georgia's profitability ratios remaining strong, despite the drop in ROA, but banks in Louisiana on average lost money, showing an ROA of -0.04. Mississippi also posted a slightly lower ROA in 1986, while the ROA ratios for Alabama, Florida, and Ten-

nessee were all somewhat higher than last year's.

### Profitability Measures

Three different profitability measures provide information on bank performance.<sup>2</sup> Adjusted net interest margin, which measures the difference between the bank's interest income and its interest expense, is roughly similar to a business's profit margin. It is calculated by subtracting a bank's interest expense from its interest revenue, net of loan losses, and dividing that result by its net interest-earning assets. Interest revenue from tax-exempt securities is adjusted upward by the bank's marginal tax rate to avoid penalizing institutions holding substantial state and local securities portfolios that reduce their tax burden. Loan-loss expenses are subtracted from interest revenue to place banks that make low-risk loans at low interest rates on a more equal footing with those that make high-risk loans generating greater interest income.

The ROA ratio, obtained by dividing a bank's net income by its assets, gauges how well a bank's management is employing its assets. The ROE figure is important for a bank's shareholders because it tells them how much the institution is earning on their investments. It is

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calculated by dividing a bank's net income by its total equity.

Differences in these three ratios become apparent in a comparison of bank performance in Florida and Mississippi. The adjusted net interest margins of banks in Florida exceeded those of banks in Mississippi in 1986, yet Mississippi banks had a higher return on assets ratio than banks in Florida (see Tables 13 and 17). The differences between the two ratios may reflect changes in the banks' non-interest revenues and non-interest expenses, and changes in their securities gains or losses. Despite their lower ROA ratio, Florida banks had a greater ROE than banks in Mississippi, suggesting that the Florida institutions have lower equity capital-to-asset ratios than those in Mississippi (Table 18).

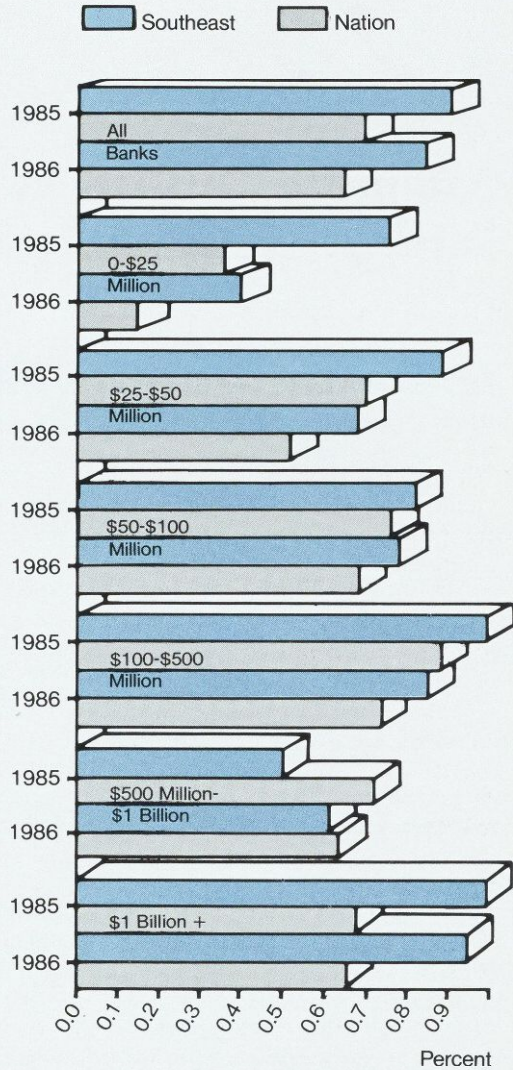
### Adjusted Net Interest Margins Continue Dropping

Adjusted net interest margins fell nationwide for banks in all six size categories (Table 1). Most of the decline at banks in the three size categories below \$100 million occurred because interest revenue as a percent of interest-earning assets fell faster than interest expense as a percent of interest-earning assets. The primary reason for the decline in the three largest categories is an increase in loan-loss expense.

The continuing increase in loan-loss expense is worrisome since faltering loans historically peak in the first year of a recovery and decline thereafter (Table 3). The persistence of these increases probably reflects the fact that many regions dependent on agriculture and energy are still experiencing economic difficulty. The increase in loan losses is also consistent with the idea that some banks are investing in more high-risk, high-return assets to offset increased funding costs due to deregulation of deposit interest rates. Regardless of the reason for the increased loan losses, the prospect of even higher loss levels should a recession occur is troubling.

The difference in interest expense as a percent of interest-earning assets across different size categories has narrowed considerably since the early 1980s (Table 4). The gap has shrunk in all size categories, but the change is especially dramatic for banks with assets above \$1 billion. For example, the disparity between funding

**Chart 1.**  
**Bank Profitability**  
**in the Southeast and the Nation**  
(Based on percentage return on assets,  
1985 compared with 1986)



Although, on average, banks in the region remained more profitable than banks in the nation as a whole, southeastern banks also experienced declining profitability in 1986.

Source: Figures in all charts and tables have been computed by the Federal Reserve Bank of Atlanta from data in FDIC, "Consolidated Reports of Condition for Insured Commercial Banks," and "Consolidated Reports of Income for Insured Commercial Banks, 1980-86."

**Table 1.**  
**Adjusted Net Interest Margin as a Percentage of Interest-Earning Assets**  
*(Insured commercial banks by consolidated assets)*

| Year | All Banks | 0-\$25 million | \$25-\$50 million | \$50-\$100 million | \$100-\$500 million | \$500 million-\$1 billion | \$1 billion + |
|------|-----------|----------------|-------------------|--------------------|---------------------|---------------------------|---------------|
| 1981 | 4.10      | 5.43           | 5.11              | 4.93               | 4.74                | 4.76                      | 3.49          |
| 1982 | 4.00      | 5.15           | 5.00              | 4.94               | 4.71                | 4.78                      | 3.41          |
| 1983 | 3.86      | 4.90           | 4.74              | 4.73               | 4.61                | 4.69                      | 3.30          |
| 1984 | 3.98      | 5.17           | 5.47              | 5.63               | 5.30                | 5.02                      | 3.55          |
| 1985 | 4.18      | 4.72           | 5.16              | 5.35               | 5.35                | 4.85                      | 3.61          |
| 1986 | 3.96      | 4.24           | 4.75              | 5.06               | 4.98                | 4.71                      | 3.48          |

**Table 2.**  
**Tax-Equivalent Interest Revenue as a Percentage of Interest-Earning Assets**  
*(Insured commercial banks by consolidated assets)*

| Year | All Banks | 0-\$25 million | \$25-\$50 million | \$50-\$100 million | \$100-\$500 million | \$500 million-\$1 billion | \$1 billion + |
|------|-----------|----------------|-------------------|--------------------|---------------------|---------------------------|---------------|
| 1981 | 15.89     | 13.65          | 13.61             | 12.44              | 13.81               | 14.23                     | 17.45         |
| 1982 | 14.91     | 14.06          | 13.88             | 13.82              | 13.82               | 14.00                     | 15.60         |
| 1983 | 12.61     | 12.76          | 12.58             | 12.46              | 12.35               | 12.52                     | 12.70         |
| 1984 | 13.11     | 12.81          | 12.67             | 12.48              | 13.41               | 13.19                     | 13.27         |
| 1985 | 12.02     | 12.76          | 12.95             | 12.97              | 12.61               | 12.22                     | 11.64         |
| 1986 | 10.78     | 11.41          | 11.69             | 11.80              | 11.51               | 11.45                     | 11.35         |

**Table 3.**  
**Loan-Loss Expense as a Percentage of Interest-Earning Assets**  
*(Insured commercial banks by consolidated assets)*

| Year | All Banks | 0-\$25 million | \$25-\$50 million | \$50-\$100 million | \$100-\$500 million | \$500 million-\$1 billion | \$1 billion + |
|------|-----------|----------------|-------------------|--------------------|---------------------|---------------------------|---------------|
| 1981 | .34       | .38            | .32               | .32                | .32                 | .32                       | .36           |
| 1982 | .52       | .54            | .49               | .45                | .51                 | .50                       | .54           |
| 1983 | .60       | .65            | .58               | .56                | .51                 | .54                       | .64           |
| 1984 | .69       | .91            | .75               | .61                | .54                 | .57                       | .73           |
| 1985 | .79       | 1.24           | .99               | .92                | .70                 | .80                       | .76           |
| 1986 | .90       | 1.27           | 1.03              | .91                | .84                 | 1.01                      | .88           |

**Table 4.**  
**Interest Expense as a Percentage of Interest-Earning Assets**  
*(Insured commercial banks by consolidated assets)*

| Year | All Banks | 0-\$25 million | \$25-\$50 million | \$50-\$100 million | \$100-\$500 million | \$500 million-\$1 billion | \$1 billion + |
|------|-----------|----------------|-------------------|--------------------|---------------------|---------------------------|---------------|
| 1981 | 11.45     | 7.83           | 8.18              | 8.32               | 8.75                | 9.15                      | 13.59         |
| 1982 | 10.39     | 8.37           | 8.40              | 8.43               | 8.61                | 8.73                      | 11.65         |
| 1983 | 8.15      | 7.22           | 7.26              | 7.17               | 7.23                | 7.29                      | 8.76          |
| 1984 | 8.45      | 7.58           | 7.63              | 7.55               | 7.57                | 7.61                      | 8.98          |
| 1985 | 7.04      | 6.79           | 6.79              | 6.69               | 6.57                | 6.57                      | 7.26          |
| 1986 | 5.92      | 5.90           | 5.90              | 5.82               | 5.69                | 5.73                      | 6.00          |

**Table 5.**  
**Percentage Return on Assets**  
*(Insured commercial banks by consolidated assets)*

| Year | All Banks | 0-\$25 million | \$25-\$50 million | \$50-\$100 million | \$100-\$500 million | \$500 million-\$1 billion | \$1 billion + |
|------|-----------|----------------|-------------------|--------------------|---------------------|---------------------------|---------------|
| 1981 | .76       | 1.20           | 1.16              | 1.08               | .94                 | .88                       | .61           |
| 1982 | .71       | 1.02           | 1.10              | 1.06               | .86                 | .81                       | .57           |
| 1983 | .67       | .88            | .98               | .98                | .88                 | .78                       | .54           |
| 1984 | .65       | .60            | .78               | .90                | .90                 | .86                       | .54           |
| 1985 | .70       | .36            | .70               | .76                | .88                 | .72                       | .67           |
| 1986 | .65       | .15            | .52               | .68                | .74                 | .63                       | .65           |

costs as a percent of interest earnings for \$1 billion banks and those costs for banks with assets of less than \$50 million exceeded 300 basis points (3 percent) in 1982. In 1986 the difference diminished to a mere 10 basis points (0.10 percent). Banks in the \$100-million-to-\$1-billion range now claim the lowest cost of funds, replacing those with assets under \$50 million.

percent decline in their ROA ratio, while banks with assets below \$25 million saw their ROA slashed by more than half—from 0.36 percent in 1985 to 0.15 percent in 1986. U.S. banks in the below-\$25 million category have shown substantial drops in average ROA every year since 1981. Banks with assets in the \$100-to-\$500-million range posted the best ROA values of the six size categories for the third consecutive year.

National ROE figures reinforce the pattern that emerges in the ROA figures (Table 6). The ROE of banks with assets below \$25 million was a mere 1.63 percent. When compared to other investment opportunities, this return is clearly inadequate compensation for the risks taken by these banks' shareholders and raises serious questions about the long-term viability of many

### **Banks' Returns on Assets and Equity**

During 1986 the extent of the drop in ROA ratios for banks nationwide grew more severe as bank size decreased (Table 5). Banks with assets in excess of \$1 billion experienced a mere 0.02

**Table 6.**  
**Percentage Return on Equity**  
*(Insured commercial banks by consolidated assets)*

| Year | All Banks | 0-\$25 million | \$25-\$50 million | \$50-\$100 million | \$100-\$500 million | \$500 million-\$1 billion | \$1 billion + |
|------|-----------|----------------|-------------------|--------------------|---------------------|---------------------------|---------------|
| 1981 | 13.15     | 12.81          | 13.70             | 13.43              | 12.83               | 12.99                     | 13.17         |
| 1982 | 12.17     | 10.76          | 12.80             | 13.18              | 11.80               | 12.07                     | 12.16         |
| 1983 | 11.82     | 9.06           | 11.34             | 12.06              | 12.13               | 11.59                     | 11.11         |
| 1984 | 10.74     | 6.20           | 9.08              | 11.19              | 12.46               | 12.66                     | 10.51         |
| 1985 | 11.35     | 3.77           | 8.10              | 9.38               | 12.12               | 10.29                     | 12.53         |
| 1986 | 10.38     | 1.63           | 6.03              | 8.34               | 10.25               | 9.40                      | 11.83         |

**Table 7.**  
**Adjusted Net Interest Margin as a Percentage of Interest-Earning Assets**  
*(Insured commercial banks in the Southeast by consolidated assets)*

| Year | All SE Banks | 0-\$25 million | \$25-\$50 million | \$50-\$100 million | \$100-\$500 million | \$500 million-\$1 billion | \$1 billion + |
|------|--------------|----------------|-------------------|--------------------|---------------------|---------------------------|---------------|
| 1981 | 5.41         | 5.54           | 5.39              | 5.35               | 5.13                | 5.42                      | 5.76          |
| 1982 | 5.22         | 5.05           | 5.09              | 5.36               | 5.16                | 5.35                      | 5.28          |
| 1983 | 5.07         | 4.86           | 4.94              | 4.96               | 4.97                | 5.27                      | 5.23          |
| 1984 | 5.25         | 5.62           | 5.93              | 5.72               | 5.88                | 5.55                      | 5.48          |
| 1985 | 5.44         | 5.71           | 5.94              | 5.84               | 5.95                | 4.87                      | 5.09          |
| 1986 | 5.27         | 5.11           | 5.45              | 5.62               | 5.60                | 4.73                      | 5.11          |

**Table 8.**  
**Tax-Equivalent Interest Revenue as a Percentage of Interest-Earning Assets**  
*(Insured commercial banks in the Southeast by consolidated assets)*

| Year | All SE Banks | 0-\$25 million | \$25-\$50 million | \$50-\$100 million | \$100-\$500 million | \$500 million-\$1 billion | \$1 billion + |
|------|--------------|----------------|-------------------|--------------------|---------------------|---------------------------|---------------|
| 1981 | 14.91        | 13.99          | 14.06             | 13.97              | 14.13               | 14.98                     | 17.41         |
| 1982 | 14.35        | 14.25          | 14.13             | 14.22              | 14.04               | 14.53                     | 14.83         |
| 1983 | 12.85        | 12.87          | 12.66             | 12.70              | 12.49               | 12.90                     | 13.34         |
| 1984 | 13.44        | 12.95          | 12.81             | 12.50              | 13.85               | 13.67                     | 13.81         |
| 1985 | 12.75        | 13.26          | 13.59             | 13.52              | 13.15               | 12.87                     | 12.15         |
| 1986 | 11.76        | 12.00          | 12.31             | 12.39              | 12.13               | 11.73                     | 11.38         |

**Table 9.**  
**Loan-Loss Expense as a Percentage of Interest-Earning Assets**  
*(Insured commercial banks in the Southeast by consolidated assets)*

| Year | All SE Banks | 0-\$25 million | \$25-\$50 million | \$50-\$100 million | \$100-\$500 million | \$500 million-\$1 billion | \$1 billion + |
|------|--------------|----------------|-------------------|--------------------|---------------------|---------------------------|---------------|
| 1981 | .41          | .49            | .42               | .36                | .36                 | .32                       | .51           |
| 1982 | .52          | .72            | .57               | .49                | .51                 | .55                       | .47           |
| 1983 | .54          | .84            | .59               | .66                | .52                 | .54                       | .45           |
| 1984 | .54          | .75            | .65               | .64                | .48                 | .69                       | .46           |
| 1985 | .75          | .89            | .86               | .93                | .70                 | 1.16                      | .60           |
| 1986 | .82          | 1.07           | .96               | .88                | .89                 | 1.18                      | .70           |

**Table 10.**  
**Interest Expense as a Percentage of Interest-Earning Assets**  
*(Insured commercial banks in the Southeast by consolidated assets)*

| Year | All SE Banks | 0-\$25 million | \$25-\$50 million | \$50-\$100 million | \$100-\$500 million | \$500 million-\$1 billion | \$1 billion + |
|------|--------------|----------------|-------------------|--------------------|---------------------|---------------------------|---------------|
| 1981 | 9.10         | 7.95           | 8.24              | 8.26               | 8.64                | 9.23                      | 11.14         |
| 1982 | 8.61         | 8.48           | 8.47              | 8.37               | 8.38                | 8.64                      | 9.09          |
| 1983 | 7.26         | 7.17           | 7.13              | 7.09               | 7.01                | 7.09                      | 7.67          |
| 1984 | 7.65         | 7.46           | 7.56              | 7.56               | 7.49                | 7.43                      | 7.87          |
| 1985 | 6.56         | 6.66           | 6.78              | 6.73               | 6.49                | 6.83                      | 6.45          |
| 1986 | 5.66         | 5.82           | 5.90              | 5.89               | 5.64                | 5.82                      | 5.57          |

small banks. The ROE for banks in the \$25-to-\$50-million range was somewhat better at 6.03 percent, but this rate of return is still inadequate compensation for risks. The best ROE was posted by banks with assets above \$1 billion. Banks in the \$100-to-\$500-million category have a lower ROE than those with assets exceeding \$1 billion because the smaller banks have higher equity capital-to-assets ratios.

size category but one. Banks with assets between \$500 million and \$1 billion had somewhat lower ratios. Even in the \$500-million-to-\$1-billion range, however, the southeastern banks closed the gap.

Southeastern banks with assets exceeding \$1 billion reported the lowest loan-loss expenses as a percent of interest-earning assets and the lowest interest expense as a percent of interest-earning assets (Tables 9 and 10). The relative drop in funding costs is impressive given that in 1981 these banks had the highest funding costs by a considerable margin. Banks with more than \$1 billion ranked only fourth in adjusted net interest margins, however, because they also had the lowest interest revenue as a percent of interest-earning assets (Tables 7 and 8).

### Southeastern Banks Stay Ahead

Southeastern banks once again showed higher adjusted net interest margins, ROAs, and ROEs than their peers across the nation in every

**Table 11.**  
**Percentage Return on Assets**  
*(Insured commercial banks in the Southeast by consolidated assets)*

| Year | All SE Banks | 0-\$25 million | \$25-\$50 million | \$50-\$100 million | \$100-\$500 million | \$500 million-\$1 billion | \$1 billion + |
|------|--------------|----------------|-------------------|--------------------|---------------------|---------------------------|---------------|
| 1981 | 1.05         | 1.16           | 1.18              | 1.17               | 1.00                | .99                       | .95           |
| 1982 | .98          | .90            | 1.08              | 1.16               | .97                 | .92                       | .92           |
| 1983 | .97          | .70            | 1.01              | 1.01               | .97                 | .94                       | .98           |
| 1984 | .94          | .76            | .90               | .90                | 1.00                | .84                       | .96           |
| 1985 | .91          | .76            | .89               | .82                | .99                 | .50                       | .99           |
| 1986 | .85          | .40            | .68               | .78                | .85                 | .61                       | .94           |

**Table 12.**  
**Percentage Return on Equity**  
*(Insured commercial banks in the Southeast by consolidated assets)*

| Year | All SE Banks | 0-\$25 million | \$25-\$50 million | \$50-\$100 million | \$100-\$500 million | \$500 million-\$1 billion | \$1 billion + |
|------|--------------|----------------|-------------------|--------------------|---------------------|---------------------------|---------------|
| 1981 | 14.10        | 12.28          | 13.68             | 14.30              | 13.58               | 14.13                     | 15.81         |
| 1982 | 13.45        | 9.57           | 12.36             | 14.16              | 13.17               | 13.26                     | 15.27         |
| 1983 | 13.51        | 7.15           | 11.39             | 12.53              | 13.19               | 13.81                     | 16.57         |
| 1984 | 13.37        | 7.53           | 10.12             | 11.17              | 13.57               | 11.84                     | 16.59         |
| 1985 | 13.14        | 7.28           | 9.98              | 9.97               | 13.39               | 7.64                      | 16.74         |
| 1986 | 12.35        | 3.83           | 7.57              | 9.30               | 11.38               | 9.68                      | 15.70         |

**Table 13.**  
**Adjusted Net Interest Margin as a Percentage of Interest-Earning Assets**  
*(Insured commercial banks in the Southeast by state)*

| Year | All SE Banks | Alabama | Florida | Georgia | Louisiana | Mississippi | Tennessee |
|------|--------------|---------|---------|---------|-----------|-------------|-----------|
| 1981 | 5.41         | 4.94    | 6.00    | 6.29    | 5.47      | 4.25        | 4.33      |
| 1982 | 5.22         | 4.69    | 5.87    | 5.57    | 5.52      | 4.01        | 4.28      |
| 1983 | 5.07         | 4.92    | 5.58    | 5.56    | 4.83      | 4.10        | 4.36      |
| 1984 | 5.25         | 4.99    | 5.73    | 5.36    | 4.83      | 4.86        | 4.92      |
| 1985 | 5.44         | 6.04    | 5.57    | 5.92    | 4.43      | 5.78        | 5.02      |
| 1986 | 5.27         | 5.84    | 5.70    | 5.60    | 3.26      | 5.49        | 5.30      |

**Table 14.**  
**Tax-Equivalent Interest Revenue as a Percentage of Interest-Earning Assets**  
*(Insured commercial banks in the Southeast by state)*

| Year | All SE Banks | Alabama | Florida | Georgia | Louisiana | Mississippi | Tennessee |
|------|--------------|---------|---------|---------|-----------|-------------|-----------|
| 1981 | 14.91        | 15.17   | 15.40   | 15.04   | 14.79     | 13.78       | 14.48     |
| 1982 | 14.35        | 14.12   | 14.65   | 14.12   | 14.47     | 13.65       | 14.44     |
| 1983 | 12.88        | 12.70   | 13.27   | 13.21   | 12.40     | 12.19       | 12.75     |
| 1984 | 13.44        | 12.90   | 13.78   | 13.40   | 13.14     | 13.25       | 13.56     |
| 1985 | 12.75        | 13.13   | 12.75   | 13.00   | 12.44     | 13.05       | 12.32     |
| 1986 | 11.76        | 11.93   | 12.03   | 11.82   | 10.98     | 11.82       | 11.62     |

Unfortunately, southeastern banks with assets below \$50 million experienced significant drops in their ROA and ROE ratios just as their national counterparts did (Tables 11 and 12). In 1985 these banks were able to maintain their ROA ratio at levels near 1984 figures, even though ROA and ROE ratios dropped for small banks in the nation as a whole.

The ROE figures for the Southeast are consistent with ROA results. Smaller banks, particularly those with assets below \$25 million, have unsustainably low ROE, while the strongest ROE numbers are for banks with assets in excess of \$1 billion. Banks with \$100 million to \$500 million in assets show the second strongest ROE ratios.

### A State-By-State Breakdown

Banks in five of the six southeastern states posted higher adjusted net interest margins, ROA, and ROE figures than other banks around the nation, but Louisiana institutions markedly lagged behind the nation's, showing negative ROA and ROE ratios.

Higher interest revenue as a percent of interest-earning assets, and lower loan-loss expenses and interest expense ratios than the nation's average helped banks in five southeastern states, excluding Louisiana, (Tables 14, 15, and 16). Credit quality appears to have been the main problem for Louisiana banks. Loan-loss expense as a percent of interest-earning

assets climbed precipitously from a very high 1.36 percent in 1985 to 1.95 percent in 1986. The extent of loan-loss expense undoubtedly reflects the effect of lower energy prices on the state's entire economy.

Alabama banks logged the highest ROA average and the second-highest ROE among the six states (Tables 17 and 18). The decline of loan-loss expense as a percentage of interest-earning assets partly explains Alabama banks' strong performance. Georgia banks fell to second place in the ROA rankings but held first place for ROE ratios. They registered the second largest increase in loan-loss expense ratio.

Mississippi banks had somewhat higher adjusted net interest margins and ROA ratios than banks in Tennessee, but Tennessee banks scored a higher ROE ratio. Tennessee's stronger ROE suggests banks there have less equity capital than those in Mississippi. Tennessee banks, like those in Alabama, cut their loan-loss ratio in 1986.

Banks in Florida showed the second highest adjusted net interest margins, but their ROA average ranks fifth in the region. The state's ROE ratio improved, giving Florida banks the third highest profitability according to this measure.

### Distribution of Bank Profitability

Clearly, banks have become less profitable in the past few years, and smaller banks have experienced the greatest decline. However,

**Table 15.**  
**Loan-Loss Expense as a Percentage of Interest-Earning Assets**  
*(Insured commercial banks in the Southeast by state)*

| Year | All SE Banks | Alabama | Florida | Georgia | Louisiana | Mississippi | Tennessee |
|------|--------------|---------|---------|---------|-----------|-------------|-----------|
| 1981 | .41          | .51     | .33     | .42     | .40       | .46         | .45       |
| 1982 | .52          | .56     | .37     | .43     | .55       | .73         | .75       |
| 1983 | .54          | .46     | .41     | .43     | .70       | .68         | .74       |
| 1984 | .54          | .42     | .48     | .45     | .83       | .55         | .58       |
| 1985 | .75          | .60     | .65     | .56     | 1.36      | .61         | .71       |
| 1986 | .82          | .44     | .66     | .66     | 1.95      | .65         | .64       |

**Table 16.**  
**Interest Expense as a Percentage of Interest-Earning Assets**  
*(Insured commercial banks in the Southeast by state)*

| Year | All SE Banks | Alabama | Florida | Georgia | Louisiana | Mississippi | Tennessee |
|------|--------------|---------|---------|---------|-----------|-------------|-----------|
| 1981 | 9.10         | 9.72    | 9.07    | 8.32    | 8.92      | 9.07        | 9.70      |
| 1982 | 8.61         | 8.87    | 8.41    | 8.12    | 8.40      | 8.91        | 9.40      |
| 1983 | 7.26         | 7.32    | 7.28    | 7.21    | 6.86      | 7.42        | 7.64      |
| 1984 | 7.65         | 7.50    | 7.58    | 7.59    | 7.49      | 7.84        | 8.06      |
| 1985 | 6.56         | 6.48    | 6.53    | 6.53    | 6.67      | 6.65        | 6.59      |
| 1986 | 5.66         | 5.65    | 5.66    | 5.57    | 5.77      | 5.69        | 5.67      |

**Table 17.**  
**Percentage Return on Assets**  
*(Insured commercial banks in the Southeast by state)*

| Year | All SE Banks | Alabama | Florida | Georgia | Louisiana | Mississippi | Tennessee |
|------|--------------|---------|---------|---------|-----------|-------------|-----------|
| 1981 | 1.05         | 1.12    | .96     | 1.26    | 1.24      | 1.02        | .78       |
| 1982 | .98          | 1.05    | .98     | 1.12    | 1.20      | .84         | .64       |
| 1983 | .97          | 1.12    | .97     | 1.12    | 1.03      | .83         | .69       |
| 1984 | .94          | 1.09    | .90     | 1.14    | .77       | .90         | .85       |
| 1985 | .91          | 1.20    | .87     | 1.20    | .38       | 1.03        | .96       |
| 1986 | .85          | 1.22    | .88     | 1.08    | -.04      | 1.02        | .99       |



**Table 18.**  
**Percentage Return on Equity**  
*(Insured commercial banks in the Southeast by state)*

| Year | All SE Banks | Alabama | Florida | Georgia | Louisiana | Mississippi | Tennessee |
|------|--------------|---------|---------|---------|-----------|-------------|-----------|
| 1981 | 14.10        | 13.32   | 13.39   | 16.90   | 16.39     | 13.64       | 10.86     |
| 1982 | 13.45        | 12.77   | 14.06   | 15.38   | 15.60     | 11.41       | 9.25      |
| 1983 | 13.51        | 13.75   | 14.66   | 16.24   | 12.81     | 11.21       | 10.03     |
| 1984 | 13.37        | 13.59   | 14.22   | 17.23   | 9.52      | 12.25       | 12.53     |
| 1985 | 13.14        | 14.93   | 13.79   | 18.40   | 4.78      | 14.04       | 13.93     |
| 1986 | 12.35        | 15.22   | 14.36   | 16.48   | -.52      | 13.65       | 13.94     |

these statistics do not provide information on profitability gains and losses within the size categories. For example, perhaps only the most profitable banks were unable to sustain their earnings, while the majority of banks were unaffected by the changing environment. Although slumping earnings would displease the owners and managers of highly profitable banks, moderately reduced profitability at these banks should pose no public policy problems. On the other hand, if the least profitable banks have suffered most of the decline in profitability, the drop could spell a potential increase in the number of problem and failed banks. A growing incidence of troubled banks not only raises concern about the safety and soundness of the banking system, but also threatens to put stress on the Federal Deposit Insurance Corporation, which insures accounts up to the first \$100,000.

One way of analyzing the distribution of bank profitability is to study the ROA figures at various profitability percentiles. This study focuses on the profitability of banks across the nation at the 75th, 50th, and 25th percentiles in ROA. If a bank is in the 75th percentile, it means that it was more profitable than three-fourths of the institutions analyzed. Those at the 50th percentile had profitability higher than half the banks. Banks at the 25th percentile were least profitable, with ROAs higher than only the bottom 25 percent of the banks studied. The ranking was done separately for each year, so that some banks will shift to different profitability ranges over the six-year period analyzed.

The results indicate that banks at the 25th percentile (low-profit banks) have seen more

adverse (or less favorable) changes in profitability than those at the 50th or 75th percentile. In all size categories, banks at the 25th percentile show a larger drop or a smaller gain in profits than banks in the same size category at the 50th or 75th percentiles. This finding suggests that bank failure rates will continue to be high.

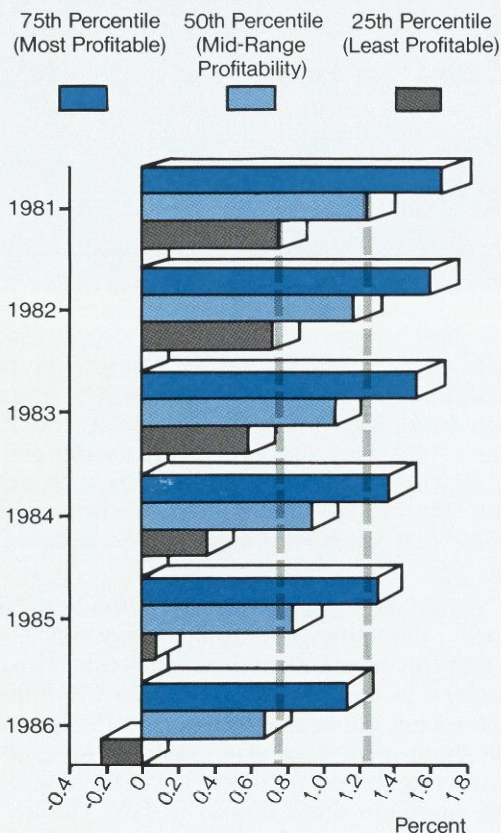
Banks with assets below \$50 million have shown declining profitability every year since 1981 in all three percentiles. Indeed, in both the under-\$25-million and the \$25-to-\$50-million categories, banks that were in the 75th percentile (high-profit banks) in 1986 have lower ROA ratios than banks that were in the 50th percentile (medium-profit banks) in 1981 (Tables 19 and 20). Moreover, banks that were in the 25th percentile in 1981 showed ROA figures at least equal to those for banks in the 50th percentile last year. Among banks with assets of less than \$25 million in 1986, the 25th percentile recorded an ROA of -0.21 percent (Chart 2).

As noted earlier, 27 percent of the banks in this size category had negative income in 1986. The results are slightly better at the 25th percentile for banks in the \$25-to-\$50-million category; they posted a positive ROA of 0.31 percent.

ROA ratios fell across the board for banks with assets between \$50 and \$100 million. The figures were below their 1981 levels in all three percentiles (Table 21). For banks between \$100 and \$500 million, the only significant drop since 1981 occurred among low-profit (25th percentile) banks (Table 22). They experienced a

**Chart 2.  
The Decline in  
Small Bank Profitability**

(A comparison of the return on assets ratios for banks with assets under \$25 million according to profitability percentile, 1981-1986)



The most profitable small banks in 1986 were less profitable than those in the middle range of profitability in 1981. Banks in the middle range of profitability in 1986 are only half as profitable as in 1981, and the least profitable banks experienced a dramatic decline.

decrease in ROA from 0.67 percent in 1981 to 0.59 percent in 1986.

Banks with assets above \$500 million fared better than smaller banks in 1986. The ROA ratios for banks between \$500 million and \$1 billion and for those greater than \$1 billion held at approximately the same level for all three percentiles, with the exception of low-profit, 25th-percentile banks in the \$500-million-to-\$1-billion category (Tables 23 and 24). The ROA for these banks was off 0.04 percentage points. Except for this low-profit group, larger banks

**Table 19.  
Percentage Return on Assets**  
(Insured commercial banks with assets below \$25 million)

| Year | Percentile According to Profitability |      |      |
|------|---------------------------------------|------|------|
|      | 75%                                   | 50%  | 25%  |
| 1981 | 1.66                                  | 1.24 | .76  |
| 1982 | 1.59                                  | 1.17 | .72  |
| 1983 | 1.51                                  | 1.07 | .58  |
| 1984 | 1.36                                  | .93  | .35  |
| 1985 | 1.30                                  | .83  | .07  |
| 1986 | 1.13                                  | .68  | -.21 |

**Table 20.  
Percentage Return on Assets**  
(Insured commercial banks with assets of \$25 million to \$50 million)

| Year | Percentile According to Profitability |      |     |
|------|---------------------------------------|------|-----|
|      | 75%                                   | 50%  | 25% |
| 1981 | 1.58                                  | 1.26 | .85 |
| 1982 | 1.54                                  | 1.17 | .80 |
| 1983 | 1.46                                  | 1.11 | .73 |
| 1984 | 1.34                                  | 1.00 | .60 |
| 1985 | 1.34                                  | .98  | .50 |
| 1986 | 1.24                                  | .85  | .31 |

have managed to increase their ROA ratios between 1981 and 1986.

The continuing fall in ROA figures at all levels of profitability for banks with assets below \$50 million raises the question of whether small banks will be able to survive. Last year's survey of bank profitability, published in the August/September 1986 *Economic Review*, cited a study by Lynn Nejezchleb (1986) which suggested that the problem was regional rather than national. Banks with assets less than \$100 million located east of the Mississippi River experienced only a small decline in their profits between 1981 and 1985, while their peers west of the Mississippi had seen their 1985 ROA fall to less than one-half its 1981 level.<sup>3</sup> Nejezchleb's hypothesis was

**Table 21.**  
**Percentage Return on Assets**  
*(Insured commercial banks with assets of \$50 million to \$100 million)*

| Year | Percentile According to Profitability |      |     |
|------|---------------------------------------|------|-----|
|      | 75%                                   | 50%  | 25% |
| 1981 | 1.45                                  | 1.09 | .76 |
| 1982 | 1.47                                  | 1.11 | .79 |
| 1983 | 1.41                                  | 1.09 | .76 |
| 1984 | 1.31                                  | 1.02 | .69 |
| 1985 | 1.34                                  | 1.03 | .60 |
| 1986 | 1.29                                  | .95  | .49 |

**Table 23.**  
**Percentage Return on Assets**  
*(Insured commercial banks with assets of \$500 million to \$1 billion)*

| Year | Percentile According to Profitability |     |     |
|------|---------------------------------------|-----|-----|
|      | 75%                                   | 50% | 25% |
| 1981 | 1.13                                  | .88 | .62 |
| 1982 | 1.15                                  | .91 | .58 |
| 1983 | 1.10                                  | .88 | .61 |
| 1984 | 1.19                                  | .91 | .62 |
| 1985 | 1.19                                  | .92 | .65 |
| 1986 | 1.18                                  | .93 | .58 |

**Table 22.**  
**Percentage Return on Assets**  
*(Insured commercial banks with assets of \$100 million to \$500 million)*

| Year | Percentile According to Profitability |      |     |
|------|---------------------------------------|------|-----|
|      | 75%                                   | 50%  | 25% |
| 1981 | 1.30                                  | .98  | .67 |
| 1982 | 1.29                                  | .97  | .66 |
| 1983 | 1.27                                  | .97  | .67 |
| 1984 | 1.28                                  | 1.01 | .73 |
| 1985 | 1.32                                  | 1.03 | .74 |
| 1986 | 1.28                                  | .98  | .59 |

**Table 24.**  
**Percentage Return on Assets**  
*(Insured commercial banks with assets over \$1 billion)*

| Year | Percentile According to Profitability |     |     |
|------|---------------------------------------|-----|-----|
|      | 75%                                   | 50% | 25% |
| 1981 | .95                                   | .76 | .53 |
| 1982 | .95                                   | .76 | .51 |
| 1983 | .98                                   | .75 | .46 |
| 1984 | 1.05                                  | .86 | .54 |
| 1985 | 1.10                                  | .88 | .59 |
| 1986 | 1.10                                  | .90 | .60 |

supported by the relatively strong performance of southeastern banks. However, this year's finding that profitability ratios have declined sharply for southeastern banks with assets below \$50 million could point to a more pervasive problem.

One explanation for the drop in the profitability of southeastern banks with assets less than \$50 million is the weakness of Louisiana's banks. To test this hypothesis, ROA ratios for 1985 and 1986 were recalculated for southeastern banks excluding those in Louisiana. The ROA ratios for the Southeast are much stronger when Louisiana is left out, but they still show falling profitability in 1986. The ROA ratio for non-Louisiana banks with assets less than \$25

million dropped from 0.94 percent in 1985 to 0.77 percent in 1986. Though the figures for these five southeastern states are clearly stronger than national averages, they are, nevertheless, relatively weak compared with these banks' historical ROA ratios. The ROA for southeastern banks excluding those in Louisiana with assets between \$25 and \$50 million decreased from 1.12 percent in 1985 to 1.04 percent in 1986, still a reasonably strong score. These figures suggest serious, widespread profitability problems for banks with assets below \$25 million. Although the profitability of the average U.S. bank in the \$25-to-\$50-million category is very weak for the nation as a whole, it is not yet a serious problem in five of the six southeastern states.

## Conclusion

Overall ROA and ROE figures for the nation are down for all six size categories examined in this study. Not since 1981 has profitability fallen in every category. The decline in ROA ranged from a small dip of 0.02 percentage points to a substantial drop of 0.18 percentage points. The most serious downturns were recorded by banks with assets below \$25 million. This group experienced a 50 percent drop in ROA and ROE ratios nationwide between 1985 and 1986 and nearly a 50 percent decrease in the Southeast. In contrast, banks with assets above \$1 billion showed only a small decline in profitability.

Despite a generally poorer performance than in 1985, southeastern banks continued to stay

ahead of their peers across the country. Alabama replaced Georgia as the southeastern state with the highest ROA. Average ROA at Louisiana banks, which have shown the region's weakest profitability for the last three years, was negative in 1986.

Profitability problems for banks with assets below \$50 million appear to be widespread and persistent, as reflected in substantial ROA declines for high-, medium-, and low-profit banks of this size. Moreover, the problems are not confined to banks in midwestern agricultural and energy states. Profits also fell for banks in the southeastern states, even when the drag exerted by Louisiana banks was excluded.

The author thanks Sherley Wilson for research assistance.

## APPENDIX

The data in this article were taken from reports of condition and income filed by insured commercial banks with their federal bank regulators. The 1985 sample selected consisted of all banks that had the same identification number at the beginning and end of each year. The number of banks in the sample was 13,868.

The three profitability measures used in this study are defined as follows:

Adjusted Net Interest Margin =

$$\frac{\text{Expected Interest Revenues} - \text{Interest}}{\text{Average Interest-Earning Assets}}$$

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Average Consolidated Assets}}$$

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Average Capital Equity}}$$

Average interest-earning assets and average stockholders' equity are derived by dividing the sum of beginning-, middle-, and end-of-the-year balance sheet figures. The expected interest income component to net interest margin incorporates two significant adjustments from ordinary interest income. Revenue from state and local securities exempt from federal income taxes is multiplied by the reciprocal of the bank's marginal tax rate, and loan-loss expenses are subtracted from interest income.

The figures presented in this study differ somewhat from those presented by the author in last year's study because errors occasionally are found in the reports filed by the banks.

## NOTES

<sup>1</sup>In this study the Southeast refers to the six states that are entirely or partially within the Sixth Federal Reserve District: Alabama, Florida, Georgia, Louisiana, Mississippi, and Tennessee. The outlook for the economies of these states is reviewed in the December 1986 issue of the *Economic Review*.

<sup>2</sup>For example, the interest rates on credit cards have been substan-

tially higher than the rates on prime commercial loans, but the loan losses on credit cards have also been larger. Loan losses on credit cards were 1.25 percent of credit card volume in 1985 according to Michael Weinstein (1985).

<sup>3</sup>See Wall (1986).

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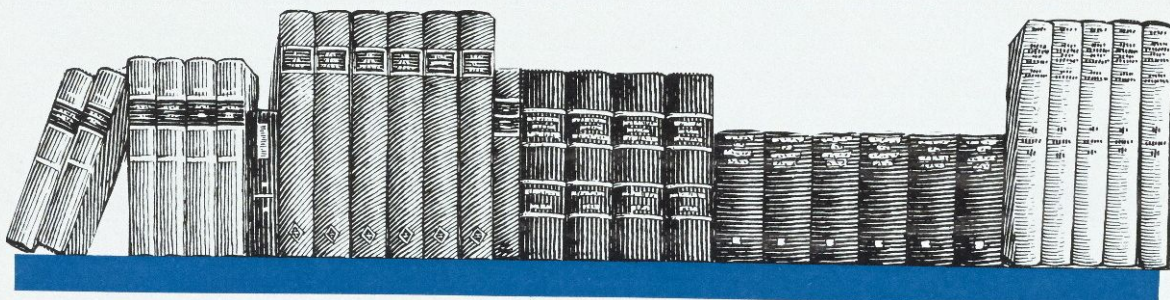
# Book Review

## *Rational Expectations and Inflation*

by Thomas J. Sargent

New York: Harper & Row, 1986. 212 pages.

\$9.00



The message contained in Thomas Sargent's *Rational Expectations and Inflation* is quite clear: inflation is not really a monetary phenomenon; that is, it has little to do with inappropriate changes in the quantity, per se, of money. The real culprit behind an increasing price level is a decrease (or an expected decrease) in the value of assets that back the money supply. As such, this book breathes some new life into the Real Bills doctrine, though in a rational expectations framework, implying that money, like any other financial instrument, gains its value by the assets behind it.<sup>1</sup> The Real Bills doctrine, at least as interpreted by Sargent and some others, holds that if the money supply is backed by "real" assets, then price level stability, among other things, will not be a problem.<sup>2</sup>

The book is a collection of six related essays, written on a level accessible to undergraduates. It centers on the problem of the interaction ("strategic interdependence") of fiscal and monetary regimes and their resulting impact on the price level. It can be loosely divided into three, two-chapter sections.

The first third of the book contains two essays concerning the implications of rational expectations for mainstream macroeconomics. Sargent finds fault with models that do not regard

an individual's or an institution's economic behavior as a function of the policy regime—"the rules of the game"—and provides a rather interesting analogy to the National Football League. A change in the rules of the game will lead to compound changes in behavior, and these changes will invalidate the results of any model that does not take into account the effect of the policy regime along with other factors. Sargent argues that the insights of rational expectations require macroeconomics, including econometrics, to be forward-looking enough to see fundamental changes of behavior resulting from changes in policy.

The text goes well beyond this problem, a simple generalization of the "Lucas critique."<sup>3</sup> Sargent also addresses the issue of the credibility and sustainability of policy regimes once announced, as well as associated changes in macroeconomic behavior given the eventual outcome of the regime. It is in this respect that inflation stops being a monetary phenomenon.

Sargent's second chapter, "Reaganomics and Credibility," argues that a continuous series of large deficits cannot persist indefinitely when accompanied by a tight monetary policy. Rather, he contends, the deficit regime must be expected to ultimately end or result in an increase in the base money supply as the fiscal authority finds it has progressively more difficulty marketing its growing supply of bonds. (In view of

*Thanks to Elsevier Science Publishers for permission to reprint parts of this review, which appeared in the Journal of Banking and Finance, vol. 10 (Winter 1986), pp. 618-620.*

recent U.S. experience, this discussion is quite timely.) It comes down to a game of "chicken"—either the fiscal authorities stop deficit spending, or the monetary authorities relax their grip on the money supply, and agents must guess who will be the first to back down.

This analysis implies that a change in policy must be evaluated not simply on its own, but also by what the new policy portends for future *changes* in policy. Not only do agents modify their behavior as a result of a change in policy; they also recognize the constraints that the new policy may place on future regimes and modify their behavior now as a reaction to what is perceived as being a necessary policy change in the future.

The second third of the book contains two historical essays concerning the problem of ending inflation. Sargent examines one episode of moderate inflation and four periods of hyperinflations (all inter-war, European). He finds that, in these cases, a change in fiscal regime, *not a change in monetary policy*, brought the inflations to quick and rather costless ends, that is, with no prolonged bouts of increased unemployment. The ends of the four hyperinflations were characterized by a rapid stabilization of the price level that accompanied a credible change in fiscal policy away from clearly uncontrolled deficits. The money supply itself continued, in each of the cases studied, to grow at quite remarkable rates for extended periods of time. The vast increase in the supply of money did not have any impact on the price level; Sargent attributes this to the change in the backing of the money—away from clearly worthless government debt toward private debt that was backed by real assets. Sargent thus makes a compelling case for the Real Bills doctrine.

The final third of the book contains two essays that probably would have been better placed with the first and second thirds of the book, respectively. Chapter 5, "Some Unpleasant Monetarist Arithmetic," is the now familiar article wherein Sargent and Neil Wallace argue that a

continued deficit (factoring out interest payments) is not compatible with a tight money policy if the rate of interest is greater than the economy's growth rate. As a result, if fiscal policy "dominates" monetary policy, expectations about future money growth, and hence future inflation, will result in higher rates of inflation.

The last essay, Chapter 6, contains some interesting speculations regarding currency depreciation in Hong Kong. Sargent, with David J. Beers and Wallace, contends that the drop in value of the Hong Kong dollar during the early 1980s may have been the result of the uncertain value of the assets backing loans in financial firms' portfolios. This uncertainty, they argue, may be due to the possible change in ownership of Hong Kong, coming with the expiration of the British lease of the territory. Inflation then may be welcomed by the financial community, for it lowers the real value of firms' liabilities as the value of their assets drops. In effect, inflation divides the asset value loss of financial institutions between the firms themselves and their depositors. The depreciation of the currency may be serving to "smooth the Hong Kong economy's adjustment to lower real property values in terms of foreign currency" (p. 202).

Overall, *Rational Expectations and Inflation* should serve to rekindle interest in the Real Bills doctrine. My only regret is that Sargent did not include "The Real Bills Doctrine vs. The Quantity Theory: A Reconsideration" (*Journal of Political Economy*, 1982, with Neil Wallace), though I suspect this was in keeping with trying to make the book as accessible as possible. At the very least, this text focuses attention on the importance of non-monetary (particularly fiscal) developments in making monetary policy. For those interested in policy issues or inflation, this book is well worth reading.

—Thomas J. Cunningham

*The reviewer, a specialist in macroeconomics and monetary theory, is an economist in the macropolicy section of the Atlanta Fed's Research Department.*

#### NOTES

<sup>1</sup>"Rational expectations" assumes that people form their expectations on the basis of all available information. Some of the far-reaching implications of this approach, which gained acceptance in the 1970s, are detailed in the text.

<sup>2</sup>Not everyone agrees; there are other interpretations of the Real Bills doctrine and other facets to this interpretation, though the money/price relationship is, I believe, the most important for the present discussion. Whether or not there is any agreement on the specific form

of the Real Bills interpretation, most economists hold the doctrine, though not necessarily in this specific form, in disrepute, either because of price level instability, procyclicality problems, or some combination of both. Further, it should be added that "real assets" do not necessarily imply, say, a gold standard.

<sup>3</sup>Robert E. Lucas, Jr., "Econometric Policy Testing: A Critique," in *The Phillips Curve and Labor Markets*, edited by Karl Brunner and Allen H. Meltzer (Amsterdam: North-Holland, 1976), pp. 19-46.



# FINANCE

## IMPORTANT MESSAGE FOR DATA USERS

In June of each year, changes are made to the deposit and reserve requirement criteria used to select institutions for inclusion in the sample on which these data are based. As of September 1986, current and previous monthly data are from institutions with over \$26.8 million in deposits and \$2.6 million of reserve requirements. Previously, data were based on a different sample of institutions. For publication purposes, monthly year-ago computations are made on the basis of these **current reporting criteria**. Therefore, they are not entirely comparable to or consistent with previously published data covering the past periods. Moreover, percent changes shown do not control for the sample change. Data users needing further detail should contact Cheryl Cornish, Database Coordinator, 404-521-8816.

|                          | MAY<br>1987 | APR.<br>1987 | MAY<br>1986 | ANN.<br>%<br>CHG. |                       | MAY<br>1987 | APR.<br>1987 | MAY<br>1986 | ANN.<br>%<br>CHG. |
|--------------------------|-------------|--------------|-------------|-------------------|-----------------------|-------------|--------------|-------------|-------------------|
| \$ millions              |             |              |             |                   |                       |             |              |             |                   |
| <b>UNITED STATES</b>     |             |              |             |                   |                       |             |              |             |                   |
| Commercial Bank Deposits | 1,695,221   | 1,708,542    | 1,551,094   | + 9               | S&Ls Total Deposits   | 676,952     | 682,705      | 613,180     | + 10              |
| Demand                   | 373,374     | 372,866      | 327,831     | +14               | NOW                   | 34,193      | 34,743       | 26,405      | + 29              |
| NOW                      | 156,446     | 159,102      | 117,121     | +34               | Savings               | 165,323     | 166,701      | 137,269     | + 20              |
| Savings                  | 515,923     | 524,365      | 447,380     | +15               | Time                  | 474,908     | 478,944      | 447,230     | + 6               |
| Time                     | 695,294     | 694,706      | 690,885     | + 1               | Credit Union Deposits | 64,366      | 63,925       | 43,749      | + 47              |
|                          |             |              |             |                   | Share Drafts          | 8,907       | 9,100        | 6,040       | + 47              |
|                          |             |              |             |                   | Savings & Time        | 54,612      | 54,352       | 36,598      | + 49              |
| <b>SOUTHEAST</b>         |             |              |             |                   |                       |             |              |             |                   |
| Commercial Bank Deposits | 201,644     | 203,178      | 184,647     | + 9               | S&Ls Total Deposits   | 88,281      | 88,698       | 79,886      | + 11              |
| Demand                   | 41,693      | 42,129       | 38,414      | + 9               | NOW                   | 5,654       | 5,708        | 4,382       | + 29              |
| NOW                      | 22,154      | 22,509       | 16,073      | +38               | Savings               | 20,833      | 20,752       | 18,081      | + 15              |
| Savings                  | 58,198      | 59,125       | 50,716      | +15               | Time                  | 61,067      | 61,631       | 56,901      | + 7               |
| Time                     | 84,157      | 84,086       | 83,422      | + 1               | Credit Union Deposits | 7,152       | 7,053        | 5,445       | + 31              |
|                          |             |              |             |                   | Share Drafts          | 853         | 867          | 604         | + 41              |
|                          |             |              |             |                   | Savings & Time        | 6,041       | 6,001        | 4,575       | + 32              |
| <b>ALABAMA</b>           |             |              |             |                   |                       |             |              |             |                   |
| Commercial Bank Deposits | 20,388      | 20,683       | 18,214      | +12               | S&Ls Total Deposits   | 6,097       | 6,156        | 4,724       | + 29              |
| Demand                   | 4,167       | 4,189        | 3,929       | + 6               | NOW                   | 388         | 382          | 247         | + 57              |
| NOW                      | 2,164       | 2,199        | 1,518       | +43               | Savings               | 1,147       | 1,159        | 867         | + 32              |
| Savings                  | 4,672       | 4,738        | 3,745       | +25               | Time                  | 4,591       | 4,649        | 3,615       | + 27              |
| Time                     | 9,906       | 10,034       | 9,428       | + 5               | Credit Union Deposits | 953         | 936          | 793         | + 20              |
|                          |             |              |             |                   | Share Drafts          | 144         | 149          | 140         | + 3               |
|                          |             |              |             |                   | Savings & Time        | 783         | 777          | 669         | + 17              |
| <b>FLORIDA</b>           |             |              |             |                   |                       |             |              |             |                   |
| Commercial Bank Deposits | 78,318      | 79,074       | 69,742      | +12               | S&Ls Total Deposits   | 56,371      | 56,347       | 56,412      | - 0               |
| Demand                   | 16,292      | 16,659       | 14,563      | +12               | NOW                   | 3,486       | 3,527        | 3,047       | + 14              |
| NOW                      | 10,049      | 10,139       | 6,976       | +44               | Savings               | 14,243      | 14,096       | 13,337      | + 7               |
| Savings                  | 27,129      | 27,488       | 23,454      | +16               | Time                  | 37,945      | 38,164       | 39,483      | - 4               |
| Time                     | 26,639      | 26,754       | 26,444      | + 1               | Credit Union Deposits | 3,728       | 3,680        | 2,946       | + 27              |
|                          |             |              |             |                   | Share Drafts          | 443         | 446          | 312         | + 42              |
|                          |             |              |             |                   | Savings & Time        | 3,056       | 3,021        | 2,369       | + 29              |
| <b>GEORGIA</b>           |             |              |             |                   |                       |             |              |             |                   |
| Commercial Bank Deposits | 31,948      | 31,968       | 28,842      | +11               | S&Ls Total Deposits   | 7,468       | 7,559        | 6,664       | + 12              |
| Demand                   | 8,598       | 8,539        | 7,838       | +10               | NOW                   | 911         | 916          | 552         | + 65              |
| NOW                      | 3,115       | 3,172        | 2,166       | +44               | Savings               | 1,618       | 1,640        | 1,458       | + 11              |
| Savings                  | 9,029       | 9,240        | 8,058       | +12               | Time                  | 4,987       | 5,047        | 4,689       | + 6               |
| Time                     | 12,815      | 12,515       | 12,117      | + 6               | Credit Union Deposits | 1,368       | 1,344        | 879         | + 56              |
|                          |             |              |             |                   | Share Drafts          | 149         | 152          | 74          | +101              |
|                          |             |              |             |                   | Savings & Time        | 1,201       | 1,203        | 795         | + 51              |
| <b>LOUISIANA</b>         |             |              |             |                   |                       |             |              |             |                   |
| Commercial Bank Deposits | 28,367      | 28,610       | 28,334      | + 0               | S&Ls Total Deposits   | 9,842       | 10,089       | 6,053       | + 63              |
| Demand                   | 5,236       | 5,205        | 5,150       | + 2               | NOW                   | 391         | 394          | 265         | + 48              |
| NOW                      | 2,290       | 2,350        | 1,856       | +23               | Savings               | 2,190       | 2,217        | 1,356       | + 62              |
| Savings                  | 8,188       | 8,300        | 7,441       | +10               | Time                  | 7,268       | 7,479        | 4,451       | + 63              |
| Time                     | 13,175      | 13,233       | 14,221      | - 7               | Credit Union Deposits | *           | *            | *           |                   |
|                          |             |              |             |                   | Share Drafts          | *           | *            | *           |                   |
|                          |             |              |             |                   | Savings & Time        | *           | *            | *           |                   |
| <b>MISSISSIPPI</b>       |             |              |             |                   |                       |             |              |             |                   |
| Commercial Bank Deposits | 14,135      | 14,211       | 13,489      | + 5               | S&Ls Total Deposits   | 1,859       | 1,872        | 777         | +139              |
| Demand                   | 2,403       | 2,503        | 2,414       | - 0               | NOW                   | 103         | 105          | 56          | + 84              |
| NOW                      | 1,459       | 1,471        | 1,146       | +27               | Savings               | 283         | 290          | 118         | +140              |
| Savings                  | 3,106       | 3,150        | 2,694       | +15               | Time                  | 1,358       | 1,361        | 575         | +136              |
| Time                     | 7,449       | 7,410        | 7,464       | - 0               | Credit Union Deposits | *           | *            | *           |                   |
|                          |             |              |             |                   | Share Drafts          | *           | *            | *           |                   |
|                          |             |              |             |                   | Savings & Time        | *           | *            | *           |                   |
| <b>TENNESSEE</b>         |             |              |             |                   |                       |             |              |             |                   |
| Commercial Bank Deposits | 28,488      | 28,632       | 26,026      | + 9               | S&Ls Total Deposits   | 6,644       | 6,675        | 5,256       | + 26              |
| Demand                   | 4,997       | 5,034        | 4,520       | +11               | NOW                   | 375         | 384          | 215         | + 74              |
| NOW                      | 3,077       | 3,178        | 2,411       | +28               | Savings               | 1,352       | 1,350        | 945         | + 43              |
| Savings                  | 6,074       | 6,209        | 5,324       | +14               | Time                  | 4,918       | 4,931        | 4,088       | + 20              |
| Time                     | 14,173      | 14,140       | 13,748      | + 3               | Credit Union Deposits | 1,103       | 1,093        | 827         | + 33              |
|                          |             |              |             |                   | Share Drafts          | 117         | 120          | 78          | + 50              |
|                          |             |              |             |                   | Savings & Time        | 1,001       | 1,000        | 742         | + 35              |

**Notes:** All deposit data are extracted from the Federal Reserve Report of Transaction Accounts, other Deposits and Vault Cash (FR2900), and are reported for the average of the week ending the 1st Monday of the month. Most recent data, reported by institutions with over \$26.8 million in deposits and \$2.6 million of reserve requirements as of June 1986, represents 95% of deposits in the six state area. The major differences between this report and the "call report" are size, the treatment of interbank deposits, and the treatment of float. The total deposit data generated from the Report of Transaction Accounts eliminates interbank deposits by reporting the net of deposits "due to" and "due from" other depository institutions. The Report of Transaction Accounts subtracts cash in process of collection from demand deposits, while the call report does not. The Southeast data represent the total of the six states. Subcategories were chosen on a selective basis and do not add to total.  
\* = fewer than four institutions reporting.





# FINANCE

## IMPORTANT MESSAGE FOR DATA USERS

In June of each year, changes are made to the deposit and reserve requirement criteria used to select institutions for inclusion in the sample on which these data are based. As of September 1986, current and previous monthly data are from institutions with over \$26.8 million in deposits and \$2.6 million of reserve requirements. Previously, data were based on a different sample of institutions. For publication purposes, monthly year-ago computations are made on the basis of these **current reporting criteria**. Therefore, they are not entirely comparable to or consistent with previously published data covering the past periods. Moreover, percent changes shown do not control for the sample change. Data users needing further detail should contact Cheryl Cornish, Database Coordinator, 404-521-8816.

|                          | JUNE<br>1987 | MAY<br>1987 | JUNE<br>1986 | ANN.<br>%<br>CHG. |                       | JUNE<br>1987 | MAY<br>1987 | JUNE<br>1986 | ANN.<br>%<br>CHG. |
|--------------------------|--------------|-------------|--------------|-------------------|-----------------------|--------------|-------------|--------------|-------------------|
| \$ millions              |              |             |              |                   |                       |              |             |              |                   |
| <b>UNITED STATES</b>     |              |             |              |                   |                       |              |             |              |                   |
| Commercial Bank Deposits | 1,704,535    | 1,695,221   | 1,576,765    | + 8               | S&Ls Total Deposits   | 673,822      | 676,952     | 621,233      | + 8               |
| Demand                   | 369,769      | 373,374     | 342,638      | + 8               | NOW                   | 33,938       | 34,193      | 27,911       | + 22              |
| NOW                      | 154,886      | 156,446     | 122,366      | +27               | Savings               | 163,676      | 165,323     | 139,416      | + 17              |
| Savings                  | 518,358      | 515,923     | 457,704      | +13               | Time                  | 473,667      | 474,908     | 451,979      | + 5               |
| Time                     | 705,211      | 695,294     | 608,727      | + 2               | Credit Union Deposits | 65,046       | 64,366      | 45,255       | + 44              |
|                          |              |             |              |                   | Share Drafts          | 8,898        | 8,907       | 6,513        | + 37              |
|                          |              |             |              |                   | Savings & Time        | 55,291       | 54,612      | 37,734       | + 47              |
| <b>SOUTHEAST</b>         |              |             |              |                   |                       |              |             |              |                   |
| Commercial Bank Deposits | 201,920      | 201,644     | 185,751      | + 9               | S&Ls Total Deposits   | 87,646       | 88,281      | 84,559       | + 4               |
| Demand                   | 41,543       | 41,693      | 39,057       | + 6               | NOW                   | 5,535        | 5,654       | 4,834        | + 15              |
| NOW                      | 21,743       | 22,154      | 16,492       | +32               | Savings               | 20,607       | 20,833      | 19,115       | + 8               |
| Savings                  | 58,277       | 58,198      | 51,381       | +13               | Time                  | 60,847       | 61,067      | 60,111       | + 1               |
| Time                     | 85,103       | 84,157      | 82,920       | + 3               | Credit Union Deposits | 7,290        | 7,152       | 5,297        | + 38              |
|                          |              |             |              |                   | Share Drafts          | 861          | 853         | 638          | + 35              |
|                          |              |             |              |                   | Savings & Time        | 6,120        | 6,041       | 4,404        | + 39              |
| <b>ALABAMA</b>           |              |             |              |                   |                       |              |             |              |                   |
| Commercial Bank Deposits | 20,644       | 20,388      | 18,579       | +11               | S&Ls Total Deposits   | 6,008        | 6,097       | 4,685        | + 28              |
| Demand                   | 4,178        | 4,167       | 4,024        | + 4               | NOW                   | 376          | 388         | 255          | + 47              |
| NOW                      | 2,167        | 2,164       | 1,589        | +36               | Savings               | 1,139        | 1,147       | 885          | + 29              |
| Savings                  | 4,726        | 4,672       | 3,866        | +22               | Time                  | 4,520        | 4,591       | 3,564        | + 27              |
| Time                     | 10,057       | 9,906       | 9,520        | + 6               | Credit Union Deposits | 970          | 953         | 800          | + 21              |
|                          |              |             |              |                   | Share Drafts          | 143          | 144         | 152          | - 6               |
|                          |              |             |              |                   | Savings & Time        | 793          | 783         | 677          | + 17              |
| <b>FLORIDA</b>           |              |             |              |                   |                       |              |             |              |                   |
| Commercial Bank Deposits | 77,847       | 78,318      | 69,766       | +12               | S&Ls Total Deposits   | 55,895       | 56,371      | 60,430       | - 8               |
| Demand                   | 16,033       | 16,292      | 14,585       | +10               | NOW                   | 3,388        | 3,486       | 3,403        | - 0               |
| NOW                      | 9,696        | 10,049      | 7,093        | +37               | Savings               | 14,024       | 14,243      | 14,158       | - 1               |
| Savings                  | 27,110       | 27,129      | 23,550       | +15               | Time                  | 37,840       | 37,945      | 42,334       | - 11              |
| Time                     | 26,864       | 26,639      | 26,275       | + 2               | Credit Union Deposits | 3,809        | 3,728       | 2,851        | + 34              |
|                          |              |             |              |                   | Share Drafts          | 449          | 443         | 320          | + 40              |
|                          |              |             |              |                   | Savings & Time        | 3,095        | 3,056       | 2,259        | + 37              |
| <b>GEORGIA</b>           |              |             |              |                   |                       |              |             |              |                   |
| Commercial Bank Deposits | 32,417       | 31,948      | 29,236       | +11               | S&Ls Total Deposits   | 7,468        | 7,468       | 6,452        | + 16              |
| Demand                   | 8,739        | 8,598       | 8,051        | + 9               | NOW                   | 906          | 911         | 566          | + 60              |
| NOW                      | 3,090        | 3,115       | 2,249        | +37               | Savings               | 1,628        | 1,618       | 1,410        | + 15              |
| Savings                  | 9,069        | 9,029       | 8,238        | +10               | Time                  | 4,978        | 4,987       | 4,515        | + 10              |
| Time                     | 13,186       | 12,815      | 12,007       | +10               | Credit Union Deposits | 1,398        | 1,368       | 798          | + 75              |
|                          |              |             |              |                   | Share Drafts          | 151          | 149         | 82           | + 84              |
|                          |              |             |              |                   | Savings & Time        | 1,221        | 1,201       | 709          | + 72              |
| <b>LOUISIANA</b>         |              |             |              |                   |                       |              |             |              |                   |
| Commercial Bank Deposits | 28,213       | 28,367      | 28,401       | - 1               | S&Ls Total Deposits   | 9,843        | 9,842       | 6,468        | + 52              |
| Demand                   | 5,133        | 5,236       | 5,258        | - 2               | NOW                   | 396          | 391         | 289          | + 37              |
| NOW                      | 2,303        | 2,290       | 1,893        | +22               | Savings               | 2,181        | 2,190       | 1,479        | + 47              |
| Savings                  | 8,175        | 8,188       | 7,589        | + 8               | Time                  | 7,261        | 7,268       | 4,718        | + 54              |
| Time                     | 13,067       | 13,175      | 14,071       | - 7               | Credit Union Deposits | *            | *           | *            | *                 |
|                          |              |             |              |                   | Share Drafts          | *            | *           | *            | *                 |
|                          |              |             |              |                   | Savings & Time        | *            | *           | *            | *                 |
| <b>MISSISSIPPI</b>       |              |             |              |                   |                       |              |             |              |                   |
| Commercial Bank Deposits | 14,159       | 14,135      | 13,574       | + 4               | S&Ls Total Deposits   | 1,812        | 1,859       | 867          | +109              |
| Demand                   | 2,365        | 2,403       | 2,435        | - 3               | NOW                   | 99           | 103         | 63           | + 57              |
| NOW                      | 1,418        | 1,459       | 1,164        | +22               | Savings               | 279          | 283         | 132          | +111              |
| Savings                  | 3,099        | 3,106       | 2,751        | +13               | Time                  | 1,343        | 1,358       | 633          | +112              |
| Time                     | 7,510        | 7,449       | 7,435        | + 1               | Credit Union Deposits | *            | *           | *            | *                 |
|                          |              |             |              |                   | Share Drafts          | *            | *           | *            | *                 |
|                          |              |             |              |                   | Savings & Time        | *            | *           | *            | *                 |
| <b>TENNESSEE</b>         |              |             |              |                   |                       |              |             |              |                   |
| Commercial Bank Deposits | 28,640       | 28,488      | 26,195       | + 9               | S&Ls Total Deposits   | 6,620        | 6,644       | 5,657        | + 17              |
| Demand                   | 5,095        | 4,997       | 4,704        | + 8               | NOW                   | 370          | 375         | 258          | + 43              |
| NOW                      | 3,069        | 3,077       | 2,504        | +23               | Savings               | 1,356        | 1,352       | 1,051        | + 29              |
| Savings                  | 6,098        | 6,074       | 5,387        | +13               | Time                  | 4,905        | 4,918       | 4,347        | + 13              |
| Time                     | 14,419       | 14,173      | 13,612       | + 6               | Credit Union Deposits | 1,113        | 1,103       | 848          | + 31              |
|                          |              |             |              |                   | Share Drafts          | 118          | 117         | 84           | + 40              |
|                          |              |             |              |                   | Savings & Time        | 1,011        | 1,001       | 759          | + 33              |

**Notes:** All deposit data are extracted from the Federal Reserve Report of Transaction Accounts, other Deposits and Vault Cash (FR2900), and are reported for the average of the week ending the 1st Monday of the month. Most recent data, reported by institutions with over \$26.8 million in deposits and \$2.6 million of reserve requirements as of June 1986, represents 95% of deposits in the six state area. The major differences between this report and the "call report" are size, the treatment of interbank deposits, and the treatment of float. The total deposit data generated from the Report of Transaction Accounts eliminates interbank deposits by reporting the net of deposits "due to" and "due from" other depository institutions. The Report of Transaction Accounts subtracts cash in process of collection from demand deposits, while the call report does not. The Southeast data represent the total of the six states. Subcategories were chosen on a selective basis and do not add to total.

\* = fewer than four institutions reporting.



# EMPLOYMENT

|                               | MAR<br>1987 | FEB<br>1987 | MAR<br>1986 | ANN.<br>%<br>CHG |                             | MAR<br>1987 | FEB<br>1987 | MAR<br>1986 | ANN.<br>%<br>CHG |
|-------------------------------|-------------|-------------|-------------|------------------|-----------------------------|-------------|-------------|-------------|------------------|
| <b>UNITED STATES</b>          |             |             |             |                  |                             |             |             |             |                  |
| Civilian Labor Force - thous. | 118,353     | 117,967     | 116,309     | +2               | Nonfarm Employment - thous. | 101,148     | 100,500     | 98,617      | +3               |
| Total Employed - thous.       | 110,229     | 109,464     | 107,643     | +2               | Manufacturing               | 19,082      | 19,062      | 19,148      | -0               |
| Total Unemployed - thous.     | 8,124       | 8,503       | 8,667       | -6               | Construction                | 4,633       | 4,559       | 4,441       | +4               |
| Unemployment Rate - % SA      | 6.6         | 6.7         | 7.2         |                  | Trade                       | 23,830      | 23,706      | 23,221      | +3               |
| Mfg. Avg. Wkly. Hours         | 40.9        | 40.8        | 40.7        | +0               | Government                  | 17,286      | 17,176      | 17,013      | +2               |
| Mfg. Avg. Wkly. Earn. - \$    | 403         | 401         | 396         | +2               | Services                    | 23,737      | 23,498      | 22,593      | +5               |
|                               |             |             |             |                  | Fin., Ins. & Real. Est.     | 6,510       | 6,461       | 6,144       | +6               |
|                               |             |             |             |                  | Trans., Com. & Pub. Util.   | 5,344       | 5,316       | 5,215       | +2               |
| <b>SOUTHEAST</b>              |             |             |             |                  |                             |             |             |             |                  |
| Civilian Labor Force - thous. | 16,170      | 16,045      | 15,654      | +3               | Nonfarm Employment - thous. | 13,319      | 13,248      | 12,948      | +3               |
| Total Employed - thous.       | 14,931      | 14,768      | 14,403      | +4               | Manufacturing               | 2,319       | 2,320       | 2,308       | +0               |
| Total Unemployed - thous.     | 1,239       | 1,277       | 1,251       | -1               | Construction                | 780         | 777         | 767         | +2               |
| Unemployment Rate - % SA      | 7.5         | 7.7         | 7.9         |                  | Trade                       | 3,325       | 3,300       | 3,203       | +4               |
| Mfg. Avg. Wkly. Hours         | 40.9        | 41.1        | 40.8        | +0               | Government                  | 2,346       | 2,338       | 2,301       | +2               |
| Mfg. Avg. Wkly. Earn. - \$    | 358         | 359         | 350         | +2               | Services                    | 2,933       | 2,900       | 2,777       | +6               |
|                               |             |             |             |                  | Fin., Ins. & Real. Est.     | 787         | 785         | 749         | +5               |
|                               |             |             |             |                  | Trans., Com. & Pub. Util.   | 728         | 726         | 720         | +1               |
| <b>ALABAMA</b>                |             |             |             |                  |                             |             |             |             |                  |
| Civilian Labor Force - thous. | 1,868       | 1,866       | 1,866       | +0               | Nonfarm Employment - thous. | 1,467       | 1,465       | 1,448       | +1               |
| Total Employed - thous.       | 1,685       | 1,680       | 1,672       | +1               | Manufacturing               | 350         | 355         | 353         | -1               |
| Total Unemployed - thous.     | 183         | 186         | 195         | -6               | Construction                | 75          | 74          | 74          | +1               |
| Unemployment Rate - % SA      | 9.2         | 9.3         | 8.9         |                  | Trade                       | 324         | 321         | 312         | +4               |
| Mfg. Avg. Wkly. Hours         | 40.6        | 41.0        | 40.4        | +0               | Government                  | 300         | 300         | 301         | -0               |
| Mfg. Avg. Wkly. Earn. - \$    | 353         | 355         | 350         | +1               | Services                    | 265         | 263         | 255         | +4               |
|                               |             |             |             |                  | Fin., Ins. & Real. Est.     | 70          | 70          | 68          | +5               |
|                               |             |             |             |                  | Trans., Com. & Pub. Util.   | 71          | 71          | 71          | 0                |
| <b>FLORIDA</b>                |             |             |             |                  |                             |             |             |             |                  |
| Civilian Labor Force - thous. | 5,811       | 5,722       | 5,439       | +7               | Nonfarm Employment - thous. | 4,800       | 4,759       | 4,584       | +5               |
| Total Employed - thous.       | 5,498       | 5,422       | 5,124       | +7               | Manufacturing               | 525         | 525         | 517         | +2               |
| Total Unemployed - thous.     | 313         | 300         | 316         | -1               | Construction                | 341         | 339         | 336         | +1               |
| Unemployment Rate - % SA      | 5.6         | 5.7         | 6.1         |                  | Trade                       | 1,313       | 1,298       | 1,235       | +6               |
| Mfg. Avg. Wkly. Hours         | 40.5        | 40.5        | 40.6        | -0               | Government                  | 733         | 729         | 708         | +4               |
| Mfg. Avg. Wkly. Earn. - \$    | 328         | 328         | 324         | +1               | Services                    | 1,280       | 1,262       | 1,201       | +7               |
|                               |             |             |             |                  | Fin., Ins. & Real. Est.     | 352         | 350         | 332         | +6               |
|                               |             |             |             |                  | Trans., Com. & Pub. Util.   | 247         | 246         | 245         | +1               |
| <b>GEORGIA</b>                |             |             |             |                  |                             |             |             |             |                  |
| Civilian Labor Force - thous. | 3,085       | 3,053       | 2,951       | +5               | Nonfarm Employment - thous. | 2,735       | 2,724       | 2,624       | +4               |
| Total Employed - thous.       | 2,907       | 2,870       | 2,773       | +5               | Manufacturing               | 567         | 564         | 565         | +0               |
| Total Unemployed - thous.     | 178         | 183         | 178         | 0                | Construction                | 155         | 158         | 147         | +5               |
| Unemployment Rate - % SA      | 5.5         | 5.7         | 5.8         |                  | Trade                       | 689         | 687         | 646         | +7               |
| Mfg. Avg. Wkly. Hours         | 41.0        | 41.2        | 40.5        | +1               | Government                  | 468         | 466         | 457         | +2               |
| Mfg. Avg. Wkly. Earn. - \$    | 344         | 345         | 337         | +2               | Services                    | 531         | 524         | 491         | +8               |
|                               |             |             |             |                  | Fin., Ins. & Real. Est.     | 149         | 149         | 140         | +6               |
|                               |             |             |             |                  | Trans., Com. & Pub. Util.   | 167         | 167         | 164         | +2               |
| <b>LOUISIANA</b>              |             |             |             |                  |                             |             |             |             |                  |
| Civilian Labor Force - thous. | 1,936       | 1,949       | 1,987       | -3               | Nonfarm Employment - thous. | 1,485       | 1,486       | 1,547       | -4               |
| Total Employed - thous.       | 1,675       | 1,668       | 1,744       | -4               | Manufacturing               | 163         | 163         | 167         | -2               |
| Total Unemployed - thous.     | 261         | 281         | 243         | +7               | Construction                | 83          | 83          | 94          | -12              |
| Unemployment Rate - % SA      | 13.1        | 13.9        | 11.8        |                  | Trade                       | 355         | 357         | 373         | -5               |
| Mfg. Avg. Wkly. Hours         | 42.1        | 42.1        | 41.6        | +1               | Government                  | 320         | 320         | 325         | -2               |
| Mfg. Avg. Wkly. Earn. - \$    | 456         | 454         | 445         | +2               | Services                    | 316         | 315         | 321         | -2               |
|                               |             |             |             |                  | Fin., Ins. & Real. Est.     | 85          | 85          | 86          | -0               |
|                               |             |             |             |                  | Trans., Com. & Pub. Util.   | 105         | 105         | 112         | -6               |
| <b>MISSISSIPPI</b>            |             |             |             |                  |                             |             |             |             |                  |
| Civilian Labor Force - thous. | 1,157       | 1,147       | 1,154       | +0               | Nonfarm Employment - thous. | 855         | 849         | 846         | +1               |
| Total Employed - thous.       | 1,028       | 1,008       | 1,021       | +1               | Manufacturing               | 221         | 221         | 223         | -1               |
| Total Unemployed - thous.     | 128         | 140         | 133         | -4               | Construction                | 34          | 31          | 34          | 0                |
| Unemployment Rate - % SA      | 10.5        | 11.1        | 10.9        |                  | Trade                       | 184         | 182         | 179         | +3               |
| Mfg. Avg. Wkly. Hours         | 39.9        | 40.1        | 40.4        | -1               | Government                  | 195         | 195         | 193         | +1               |
| Mfg. Avg. Wkly. Earn. - \$    | 303         | 303         | 300         | +1               | Services                    | 138         | 137         | 134         | +3               |
|                               |             |             |             |                  | Fin., Ins. & Real. Est.     | 38          | 38          | 36          | +6               |
|                               |             |             |             |                  | Trans., Com. & Pub. Util.   | 40          | 39          | 38          | +5               |
| <b>TENNESSEE</b>              |             |             |             |                  |                             |             |             |             |                  |
| Civilian Labor Force - thous. | 2,314       | 2,308       | 2,256       | +3               | Nonfarm Employment - thous. | 1,978       | 1,965       | 1,899       | +4               |
| Total Employed - thous.       | 2,137       | 2,120       | 2,069       | +3               | Manufacturing               | 493         | 493         | 483         | +2               |
| Total Unemployed - thous.     | 176         | 188         | 187         | -6               | Construction                | 92          | 92          | 81          | +14              |
| Unemployment Rate - % SA      | 7.2         | 6.9         | 8.3         |                  | Trade                       | 461         | 456         | 457         | +1               |
| Mfg. Avg. Wkly. Hours         | 41.2        | 41.5        | 41.1        | +0               | Government                  | 331         | 328         | 318         | +4               |
| Mfg. Avg. Wkly. Earn. - \$    | 362         | 366         | 342         | +6               | Services                    | 403         | 399         | 376         | +7               |
|                               |             |             |             |                  | Fin., Ins. & Real. Est.     | 93          | 93          | 87          | +7               |
|                               |             |             |             |                  | Trans., Com. & Pub. Util.   | 97          | 97          | 90          | +8               |

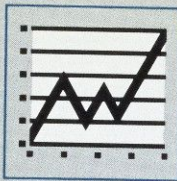
NOTES: All labor force data are from Bureau of Labor Statistics reports supplied by state agencies.  
Only the unemployment rate data are seasonally adjusted.  
The Southeast data represent the total of the six states.



# EMPLOYMENT

|                               | APR<br>1987 | MAR<br>1987 | APR<br>1986 | ANN.<br>%<br>CHG |                             | APR<br>1987 | MAR<br>1987 | APR<br>1986 | ANN.<br>%<br>CHG |
|-------------------------------|-------------|-------------|-------------|------------------|-----------------------------|-------------|-------------|-------------|------------------|
| <b>UNITED STATES</b>          |             |             |             |                  |                             |             |             |             |                  |
| Civilian Labor Force - thous. | 116,317     | 118,353     | 117,234     | -1               | Nonfarm Employment - thous. | 102,091     | 101,131     | 99,553      | +3               |
| Total Employed - thous.       | 111,041     | 110,229     | 108,201     | +3               | Manufacturing               | 19,134      | 19,102      | 19,154      | -0               |
| Total Unemployed - thous.     | 7,306       | 8,124       | 8,115       | -10              | Construction                | 4,889       | 4,644       | 4,783       | +2               |
| Unemployment Rate - % SA      | 6.2         | 6.5         | 7.0         |                  | Trade                       | 24,122      | 23,818      | 23,493      | +3               |
| Mfg. Avg. Wkly. Hours         | 40.4        | 40.9        | 40.7        | -1               | Government                  | 17,316      | 17,275      | 17,006      | +2               |
| Mfg. Avg. Wkly. Earn. - \$    | 399         | 402         | 393         | +2               | Services                    | 23,966      | 23,720      | 22,871      | +5               |
|                               |             |             |             |                  | Fin., Ins. & Real. Est.     | 6,554       | 6,501       | 6,203       | +6               |
|                               |             |             |             |                  | Trans., Com. & Pub. Util.   | 5,377       | 5,345       | 5,229       | +3               |
| <b>SOUTHEAST</b>              |             |             |             |                  |                             |             |             |             |                  |
| Civilian Labor Force - thous. | 16,099      | 16,174      | 15,745      | +2               | Nonfarm Employment - thous. | 13,373      | 13,320      | 12,989      | +3               |
| Total Employed - thous.       | 14,995      | 14,929      | 14,519      | +3               | Manufacturing               | 2,330       | 2,319       | 2,314       | +1               |
| Total Unemployed - thous.     | 1,104       | 1,245       | 1,227       | -10              | Construction                | 787         | 782         | 772         | +2               |
| Unemployment Rate - % SA      | 7.1         | 7.5         | 7.9         |                  | Trade                       | 3,340       | 3,326       | 3,215       | +4               |
| Mfg. Avg. Wkly. Hours         | 40.4        | 40.9        | 40.6        | -0               | Government                  | 2,349       | 2,344       | 2,304       | +2               |
| Mfg. Avg. Wkly. Earn. - \$    | 354         | 358         | 350         | +1               | Services                    | 2,943       | 2,932       | 2,794       | +5               |
|                               |             |             |             |                  | Fin., Ins. & Real. Est.     | 791         | 788         | 758         | +4               |
|                               |             |             |             |                  | Trans., Com. & Pub. Util.   | 730         | 728         | 719         | +2               |
| <b>ALABAMA</b>                |             |             |             |                  |                             |             |             |             |                  |
| Civilian Labor Force - thous. | 1,864       | 1,866       | 1,869       | -0               | Nonfarm Employment - thous. | 1,480       | 1,466       | 1,463       | +1               |
| Total Employed - thous.       | 1,711       | 1,682       | 1,689       | +1               | Manufacturing               | 355         | 349         | 359         | -1               |
| Total Unemployed - thous.     | 152         | 184         | 180         | -16              | Construction                | 76          | 76          | 75          | +1               |
| Unemployment Rate - % SA      | 8.6         | 9.3         | 10.0        |                  | Trade                       | 327         | 324         | 316         | +3               |
| Mfg. Avg. Wkly. Hours         | 40.6        | 40.7        | 40.6        | 0                | Government                  | 302         | 300         | 301         | +0               |
| Mfg. Avg. Wkly. Earn. - \$    | 354         | 355         | 352         | +1               | Services                    | 267         | 265         | 259         | +3               |
|                               |             |             |             |                  | Fin., Ins. & Real. Est.     | 71          | 70          | 68          | +3               |
|                               |             |             |             |                  | Trans., Com. & Pub. Util.   | 71          | 71          | 71          | 0                |
| <b>FLORIDA</b>                |             |             |             |                  |                             |             |             |             |                  |
| Civilian Labor Force - thous. | 5,768       | 5,811       | 5,525       | +4               | Nonfarm Employment - thous. | 4,797       | 4,798       | 4,577       | +5               |
| Total Employed - thous.       | 5,469       | 5,498       | 5,204       | +5               | Manufacturing               | 525         | 525         | 516         | +2               |
| Total Unemployed - thous.     | 299         | 313         | 321         | -7               | Construction                | 338         | 339         | 334         | +1               |
| Unemployment Rate - % SA      | 5.5         | 5.6         | 5.8         |                  | Trade                       | 1,310       | 1,314       | 1,227       | +7               |
| Mfg. Avg. Wkly. Hours         | 40.1        | 40.5        | 40.5        | -1               | Government                  | 733         | 732         | 707         | +4               |
| Mfg. Avg. Wkly. Earn. - \$    | 324         | 327         | 322         | +1               | Services                    | 1,280       | 1,279       | 1,203       | +6               |
|                               |             |             |             |                  | Fin., Ins. & Real. Est.     | 353         | 352         | 336         | +5               |
|                               |             |             |             |                  | Trans., Com. & Pub. Util.   | 248         | 247         | 244         | +2               |
| <b>GEORGIA</b>                |             |             |             |                  |                             |             |             |             |                  |
| Civilian Labor Force - thous. | 3,081       | 3,087       | 2,941       | +5               | Nonfarm Employment - thous. | 2,751       | 2,736       | 2,652       | +4               |
| Total Employed - thous.       | 2,924       | 2,908       | 2,778       | +5               | Manufacturing               | 568         | 566         | 566         | +0               |
| Total Unemployed - thous.     | 157         | 180         | 163         | -4               | Construction                | 158         | 157         | 152         | +4               |
| Unemployment Rate - % SA      | 5.3         | 5.6         | 5.9         |                  | Trade                       | 694         | 689         | 658         | +5               |
| Mfg. Avg. Wkly. Hours         | 40.2        | 41.0        | 40.7        | -1               | Government                  | 469         | 468         | 457         | +3               |
| Mfg. Avg. Wkly. Earn. - \$    | 338         | 344         | 345         | -2               | Services                    | 536         | 531         | 498         | +8               |
|                               |             |             |             |                  | Fin., Ins. & Real. Est.     | 150         | 149         | 143         | +5               |
|                               |             |             |             |                  | Trans., Com. & Pub. Util.   | 168         | 167         | 165         | +2               |
| <b>LOUISIANA</b>              |             |             |             |                  |                             |             |             |             |                  |
| Civilian Labor Force - thous. | 1,922       | 1,938       | 1,990       | -3               | Nonfarm Employment - thous. | 1,490       | 1,488       | 1,534       | -3               |
| Total Employed - thous.       | 1,692       | 1,676       | 1,737       | -3               | Manufacturing               | 166         | 164         | 166         | 0                |
| Total Unemployed - thous.     | 230         | 263         | 253         | -9               | Construction                | 84          | 83          | 92          | -9               |
| Unemployment Rate - % SA      | 11.8        | 13.1        | 12.5        |                  | Trade                       | 355         | 354         | 371         | -4               |
| Mfg. Avg. Wkly. Hours         | 41.5        | 42.2        | 41.0        | +1               | Government                  | 320         | 320         | 327         | -2               |
| Mfg. Avg. Wkly. Earn. - \$    | 449         | 457         | 435         | +3               | Services                    | 317         | 317         | 320         | -1               |
|                               |             |             |             |                  | Fin., Ins. & Real. Est.     | 85          | 85          | 86          | -1               |
|                               |             |             |             |                  | Trans., Com. & Pub. Util.   | 105         | 105         | 108         | -3               |
| <b>MISSISSIPPI</b>            |             |             |             |                  |                             |             |             |             |                  |
| Civilian Labor Force - thous. | 1,145       | 1,157       | 1,155       | -1               | Nonfarm Employment - thous. | 861         | 855         | 847         | +2               |
| Total Employed - thous.       | 1,039       | 1,028       | 1,023       | +2               | Manufacturing               | 223         | 221         | 221         | +1               |
| Total Unemployed - thous.     | 107         | 129         | 132         | -19              | Construction                | 35          | 34          | 35          | 0                |
| Unemployment Rate - % SA      | 9.6         | 10.6        | 11.8        |                  | Trade                       | 186         | 184         | 181         | +3               |
| Mfg. Avg. Wkly. Hours         | 39.4        | 39.9        | 40.2        | -2               | Government                  | 195         | 195         | 193         | +1               |
| Mfg. Avg. Wkly. Earn. - \$    | 298         | 303         | 299         | -0               | Services                    | 138         | 138         | 134         | +3               |
|                               |             |             |             |                  | Fin., Ins. & Real. Est.     | 38          | 38          | 37          | +4               |
|                               |             |             |             |                  | Trans., Com. & Pub. Util.   | 40          | 40          | 39          | +2               |
| <b>TENNESSEE</b>              |             |             |             |                  |                             |             |             |             |                  |
| Civilian Labor Force - thous. | 2,319       | 2,315       | 2,266       | +2               | Nonfarm Employment - thous. | 1,994       | 1,978       | 1,917       | +4               |
| Total Employed - thous.       | 2,160       | 2,138       | 2,088       | +3               | Manufacturing               | 494         | 494         | 486         | +2               |
| Total Unemployed - thous.     | 159         | 177         | 178         | -11              | Construction                | 97          | 93          | 83          | +17              |
| Unemployment Rate - % SA      | 7.0         | 7.2         | 8.2         |                  | Trade                       | 468         | 461         | 462         | +1               |
| Mfg. Avg. Wkly. Hours         | 40.4        | 41.1        | 40.8        | -1               | Government                  | 331         | 330         | 319         | +4               |
| Mfg. Avg. Wkly. Earn. - \$    | 359         | 361         | 345         | +4               | Services                    | 405         | 402         | 380         | +7               |
|                               |             |             |             |                  | Fin., Ins. & Real. Est.     | 94          | 94          | 88          | +7               |
|                               |             |             |             |                  | Trans., Com. & Pub. Util.   | 98          | 98          | 91          | +8               |

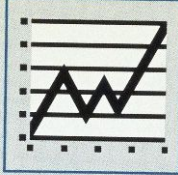
NOTES: All labor force data are from Bureau of Labor Statistics reports supplied by state agencies.  
Only the unemployment rate data are seasonally adjusted.  
The Southeast data represent the total of the six states.



# GENERAL

|                               | LATEST DATA | CURR. PERIOD | PREV. PERIOD | YEAR AGO | ANN. % CHG.        |  | APR 1987 | R MAR 1987 | ANN. % CHG. APR 1986 |
|-------------------------------|-------------|--------------|--------------|----------|--------------------|--|----------|------------|----------------------|
| <b>UNITED STATES</b>          |             |              |              |          |                    |  |          |            |                      |
| <b>Personal Income</b>        |             |              |              |          | <b>Agriculture</b> |  |          |            |                      |
| (\$ bil. - SAAR)              | Q4          | 3,529.7      | 3,498.7      | 3,379.7  | + 4                | Prices Rec'd by Farmers Index (1977=100) | 125      | 123        | 121 + 3              |
| Taxable Sales - \$ bil.       |             | N.A.         | N.A.         | N.A.     |                    | Broiler Placements (thous.)              | 90,686   | 89,111     | 84,863 + 7           |
| Plane Pass. Arr. (thous.)     |             | N.A.         | N.A.         | N.A.     |                    | Calf Prices (\$ per cwt.)                | 75.10    | 72.50      | 58.90 +28            |
| Petroleum Prod. (thous.)      | APR         | 8,413.3      | 8,433.0      | 8,790.5  | - 4                | Broiler Prices (\$ per lb.)              | 29.60    | 29.10      | 29.90 - 1            |
| Consumer Price Index 1967=100 | APR         | 337.7        | 335.9        | 325.3    | + 4                | Soybean Prices (\$ per bu.)              | 4.82     | 4.73       | 5.22 - 8             |
| Kilowatt Hours - mils.        | FEB         | 197.7        | 209.1        | 193.2    | + 2                | Broiler Feed Cost (\$ per ton)           | (Q2)183  | (Q1)174    | (Q2)189 - 3          |
| <b>SOUTHEAST</b>              |             |              |              |          |                    |  |          |            |                      |
| <b>Personal Income</b>        |             |              |              |          | <b>Agriculture</b> |  |          |            |                      |
| (\$ bil. - SAAR)              | Q4          | 430.3        | 427.4        | 410.6    | + 5                | Prices Rec'd by Farmers Index (1977=100) | 114      | 113        | 108 + 6              |
| Taxable Sales - \$ bil.       |             | N.A.         | N.A.         | N.A.     |                    | Broiler Placements (thous.)              | 37,897   | 36,761     | 35,386 + 7           |
| Plane Pass. Arr. (thous.)     | MAR         | 6,817.6      | 5,713.2      | 6,040.4  | +13                | Calf Prices (\$ per cwt.)                | 72.93    | 70.43      | 55.03 +33            |
| Petroleum Prod. (thous.)      | APR         | 1,422.5      | 1,424.0      | 1,411.0  | + 1                | Broiler Prices (\$ per lb.)              | 27.85    | 27.80      | 28.17 - 1            |
| Consumer Price Index 1967=100 |             | N.A.         | N.A.         | N.A.     |                    | Soybean Prices (\$ per bu.)              | 4.96     | 4.86       | 5.27 - 6             |
| Kilowatt Hours - mils.        | FEB         | 30.2         | 32.3         | 29.9     | + 1                | Broiler Feed Cost (\$ per ton)           | 173      | 168        | 181 - 4              |
| <b>ALABAMA</b>                |             |              |              |          |                    |  |          |            |                      |
| <b>Personal Income</b>        |             |              |              |          | <b>Agriculture</b> |  |          |            |                      |
| (\$ bil. - SAAR)              | Q4          | 45.4         | 45.2         | 43.7     | + 4                | Farm Cash Receipts - \$ mil.             |          |            |                      |
| Taxable Sales - \$ bil.       |             | N.A.         | N.A.         | N.A.     |                    | Dates: FEB., FEB.                        | 270      |            | 298 - 9              |
| Plane Pass. Arr. (thous.)     | MAR         | 185.2        | 130.6        | 145.2    | +28                | Broiler Placements (thous.)              | 13,228   | 13,061     | 11,930 +11           |
| Petroleum Prod. (thous.)      | APR         | 55.0         | 55.0         | 59.0     | - 7                | Calf Prices (\$ per cwt.)                | 74.10    | 69.70      | 54.20 +37            |
| Consumer Price Index 1967=100 |             | N.A.         | N.A.         | N.A.     |                    | Broiler Prices (\$ per lb.)              | 27.00    | 27.00      | 28.00 - 4            |
| Kilowatt Hours - mils.        | FEB         | 4.0          | 4.4          | 4.2      | - 5                | Soybean Prices (\$ per bu.)              | 4.91     | 4.87       | 5.20 - 6             |
|                               |             |              |              |          |                    | Broiler Feed Cost (\$ per ton)           | 177      | 175        | 181 - 2              |
| <b>FLORIDA</b>                |             |              |              |          |                    |  |          |            |                      |
| <b>Personal Income</b>        |             |              |              |          | <b>Agriculture</b> |  |          |            |                      |
| (\$ bil. - SAAR)              | Q4          | 169.1        | 168.1        | 159.9    | + 6                | Farm Cash Receipts - \$ mil.             |          |            |                      |
| Taxable Sales - \$ bil.       |             | N.A.         | N.A.         | N.A.     |                    | Dates: FEB., FEB.                        | 950      |            | 1,020 - 7            |
| Plane Pass. Arr. (thous.)     | MAR         | 3,513.0      | 3,061.5      | 3,197.2  | +10                | Broiler Placements (thous.)              | 2,402    | 2,213      | 2,388 + 1            |
| Petroleum Prod. (thous.)      | APR         | 21.0         | 23.0         | 31.0     | -32                | Calf Prices (\$ per cwt.)                | 83.50    | 73.50      | 57.10 +46            |
| Consumer Price Index 1967=100 |             | MAR          | JAN          | MAR      |                    | Broiler Prices (\$ per lb.)              | 27.00    | 27.00      | 27.00 0              |
| Kilowatt Hours - mils.        | FEB         | 178.4        | 177.2        | 174.5    | + 2                | Soybean Prices (\$ per bu.)              | 4.91     | 4.87       | 5.20 - 6             |
|                               |             | 8.8          | 9.2          | 8.6      | + 2                | Broiler Feed Cost (\$ per ton)           | 177      | 175        | 181 - 2              |
| <b>GEORGIA</b>                |             |              |              |          |                    |  |          |            |                      |
| <b>Personal Income</b>        |             |              |              |          | <b>Agriculture</b> |  |          |            |                      |
| (\$ bil. - SAAR)              | Q4          | 82.0         | 81.3         | 77.3     | + 6                | Farm Cash Receipts - \$ mil.             |          |            |                      |
| Taxable Sales - \$ bil.       |             | N.A.         | N.A.         | N.A.     |                    | Dates: FEB., FEB.                        | 383      |            | 407 - 6              |
| Plane Pass. Arr. (thous.)     | MAR         | 2,308.8      | 1,891.6      | 2,152.1  | + 7                | Broiler Placements (thous.)              | 15,169   | 14,683     | 14,308 + 6           |
| Petroleum Prod. (thous.)      |             | N.A.         | N.A.         | N.A.     |                    | Calf Prices (\$ per cwt.)                | 70.30    | 67.60      | 51.90 +35            |
| Consumer Price Index 1967=100 |             | DEC          | OCT          | DEC      |                    | Broiler Prices (\$ per lb.)              | 27.00    | 27.00      | 27.50 - 2            |
| Kilowatt Hours - mils.        | FEB         | 342.2        | 339.9        | 335.3    | + 2                | Soybean Prices (\$ per bu.)              | 5.03     | 4.74       | 5.23 - 4             |
|                               |             | 4.9          | 5.5          | 4.6      | + 7                | Broiler Feed Cost (\$ per ton)           | 177      | 175        | 181 - 2              |
| <b>LOUISIANA</b>              |             |              |              |          |                    |  |          |            |                      |
| <b>Personal Income</b>        |             |              |              |          | <b>Agriculture</b> |  |          |            |                      |
| (\$ bil. - SAAR)              | Q4          | 50.4         | 50.5         | 50.3     | + 0                | Farm Cash Receipts - \$ mil.             |          |            |                      |
| Taxable Sales - \$ bil.       |             | N.A.         | N.A.         | N.A.     |                    | Dates: FEB., FEB.                        | 214      |            | 246 -13              |
| Plane Pass. Arr. (thous.)     | MAR         | 382.4        | 305.2        | 308.8    | +24                | Broiler Placements (thous.)              | N.A.     | N.A.       | N.A.                 |
| Petroleum Prod. (thous.)      | APR         | 1,267.5      | 1,266.0      | 1,238.0  | + 2                | Calf Prices (\$ per cwt.)                | 72.50    | 70.70      | 55.10 +32            |
| Consumer Price Index 1967=100 |             | N.A.         | N.A.         | N.A.     |                    | Broiler Prices (\$ per lb.)              | 30.10    | 29.90      | 29.50 + 2            |
| Kilowatt Hours - mils.        | FEB         | 4.3          | 4.7          | 4.3      | 0                  | Soybean Prices (\$ per bu.)              | 4.93     | 4.91       | 5.23 - 6             |
|                               |             |              |              |          |                    | Broiler Feed Cost (\$ per ton)           | 159      | 147        | 181 -12              |
| <b>MISSISSIPPI</b>            |             |              |              |          |                    |  |          |            |                      |
| <b>Personal Income</b>        |             |              |              |          | <b>Agriculture</b> |  |          |            |                      |
| (\$ bil. - SAAR)              | Q4          | 25.3         | 25.1         | 24.6     | + 3                | Farm Cash Receipts - \$ mil.             |          |            |                      |
| Taxable Sales - \$ bil.       |             | N.A.         | N.A.         | N.A.     |                    | Dates: FEB., FEB.                        | 232      |            | 341 -32              |
| Plane Pass. Arr. (thous.)     | MAR         | 50.1         | 38.5         | 38.5     | +30                | Broiler Placements (thous.)              | 7,047    | 6,804      | 6,760 + 4            |
| Petroleum Prod. (thous.)      | APR         | 79.0         | 80.0         | 83.0     | - 5                | Calf Prices (\$ per cwt.)                | 75.80    | 73.60      | 55.60 +36            |
| Consumer Price Index 1967=100 |             | N.A.         | N.A.         | N.A.     |                    | Broiler Prices (\$ per lb.)              | 30.10    | 29.90      | 30.10 0              |
| Kilowatt Hours - mils.        | FEB         | 2.1          | 2.2          | 2.1      | 0                  | Soybean Prices (\$ per bu.)              | 4.96     | 4.80       | 5.28 - 6             |
|                               |             |              |              |          |                    | Broiler Feed Cost (\$ per ton)           | 159      | 147        | 181 -12              |
| <b>TENNESSEE</b>              |             |              |              |          |                    |  |          |            |                      |
| <b>Personal Income</b>        |             |              |              |          | <b>Agriculture</b> |  |          |            |                      |
| (\$ bil. - SAAR)              | Q4          | 58.1         | 57.2         | 54.8     | + 6                | Farm Cash Receipts - \$ mil.             |          |            |                      |
| Taxable Sales - \$ bil.       |             | N.A.         | N.A.         | N.A.     |                    | Dates: FEB., FEB.                        | 265      |            | 300 -12              |
| Plane Pass. Arr. (thous.)     | MAR         | 378.1        | 285.8        | 198.6    | +90                | Broiler Placements (thous.)              | N.A.     | N.A.       | N.A.                 |
| Petroleum Prod. (thous.)      |             | N.A.         | N.A.         | N.A.     |                    | Calf Prices (\$ per cwt.)                | 61.60    | 67.20      | 55.40 +11            |
| Consumer Price Index 1967=100 |             | N.A.         | N.A.         | N.A.     |                    | Broiler Prices (\$ per lb.)              | 30.00    | 29.90      | 26.00 +15            |
| Kilowatt Hours - mils.        | FEB         | 6.1          | 6.3          | 6.1      | 0                  | Soybean Prices (\$ per bu.)              | 4.98     | 4.94       | 5.41 - 8             |
|                               |             |              |              |          |                    | Broiler Feed Cost (\$ per ton)           | 205      | 187        | 189 + 8              |

**NOTES:** Personal Income data supplied by U. S. Department of Commerce. Taxable Sales are reported as a 12-month cumulative total. Plane Passenger Arrivals are collected from 26 airports. Petroleum Production data supplied by U. S. Bureau of Mines. Consumer Price Index data supplied by Bureau of Labor Statistics. Agriculture data supplied by U. S. Department of Agriculture. Farm Cash Receipts data are reported as cumulative for the calendar year through the month shown. Broiler placements are an average weekly rate. The Southeast data represent the total of the six states. N. A. = not available. The annual percent change calculation is based on most recent data over prior year. R = revised.



# GENERAL

LATEST DATA CURR. PERIOD PREV. PERIOD YEAR AGO ANN. % CHG. MAY 1987 R APR 1987 ANN. % MAY 1986 CHG.

## UNITED STATES

| Personal Income           |     |         |         |         | Agriculture             |                                |         |         |         |     |
|---------------------------|-----|---------|---------|---------|-------------------------|--------------------------------|---------|---------|---------|-----|
| (\$ bil. - SAAR)          |     |         |         |         | Prices Rec'd by Farmers |                                |         |         |         |     |
|                           |     |         |         |         | Index (1977=100)        |                                |         |         |         |     |
| Taxable Sales - \$ bil.   | Q4  | 3,529.7 | 3,498.7 | 3,379.7 | + 4                     |                                |         |         |         |     |
| Plane Pass. Arr. (thous.) |     | N.A.    | N.A.    | N.A.    |                         | 129                            | 125     | 123     | + 5     |     |
| Petroleum Prod. (thous.)  | MAY | 8,444.0 | 8,413.3 | 8,848.0 | - 5                     | 91,353                         | 90,686  | 85,391  | + 7     |     |
| Consumer Price Index      |     |         |         |         |                         | 77.60                          | 75.10   | 58.00   | +34     |     |
| 1967=100                  | MAY | 338.7   | 337.7   | 326.3   | + 4                     | 30.00                          | 29.60   | 30.90   | - 3     |     |
| Kilowatt Hours - mils.    | MAR | 193.0   | 197.7   | 187.7   | + 3                     | 5.33                           | 4.90    | 5.25    | + 2     |     |
|                           |     |         |         |         |                         | Broiler Feed Cost (\$ per ton) | (Q2)183 | (Q1)174 | (Q2)189 | - 3 |

## SOUTHEAST

| Personal Income           |     |         |         |         | Agriculture             |                                |         |         |         |     |
|---------------------------|-----|---------|---------|---------|-------------------------|--------------------------------|---------|---------|---------|-----|
| (\$ bil. - SAAR)          |     |         |         |         | Prices Rec'd by Farmers |                                |         |         |         |     |
|                           |     |         |         |         | Index (1977=100)        |                                |         |         |         |     |
| Taxable Sales - \$ bil.   | Q4  | 430.3   | 427.4   | 410.6   | + 5                     |                                |         |         |         |     |
| Plane Pass. Arr. (thous.) | APR | 6,438.0 | 6,817.6 | 5,268.8 | +22                     | 118                            | 114     | 112     | + 5     |     |
| Petroleum Prod. (thous.)  | MAY | 1,426.0 | 1,422.5 | 1,417.0 | + 1                     | 37,944                         | 37,897  | 35,525  | + 7     |     |
| Consumer Price Index      |     |         |         |         |                         | 75.11                          | 72.93   | 52.70   | +43     |     |
| 1967=100                  |     | N.A.    | N.A.    | N.A.    |                         | 28.83                          | 27.85   | 29.78   | - 3     |     |
| Kilowatt Hours - mils.    | MAR | 29.0    | 30.2    | 28.0    | + 4                     | 5.41                           | 4.96    | 5.31    | + 2     |     |
|                           |     |         |         |         |                         | Broiler Feed Cost (\$ per ton) | (Q2)173 | (Q1)168 | (Q2)181 | - 4 |

## ALABAMA

| Personal Income           |     |       |       |       | Agriculture                  |                                |        |        |     |     |
|---------------------------|-----|-------|-------|-------|------------------------------|--------------------------------|--------|--------|-----|-----|
| (\$ bil. - SAAR)          |     |       |       |       | Farm Cash Receipts - \$ mil. |                                |        |        |     |     |
|                           |     |       |       |       | Dates: MAR., MAR.            |                                |        |        |     |     |
| Taxable Sales - \$ bil.   | Q4  | 45.4  | 45.2  | 43.7  | + 4                          |                                |        |        |     |     |
| Plane Pass. Arr. (thous.) | APR | 170.8 | 185.2 | 134.8 | +27                          | 416                            |        | 447    | - 7 |     |
| Petroleum Prod. (thous.)  | MAY | 56.0  | 55.0  | 62.0  | -10                          | 13,292                         | 13,228 | 12,186 | + 9 |     |
| Consumer Price Index      |     |       |       |       |                              | 76.80                          | 71.80  | 49.70  | +55 |     |
| 1967=100                  |     | N.A.  | N.A.  | N.A.  |                              | 29.00                          | 27.00  | 30.00  | - 3 |     |
| Kilowatt Hours - mils.    | MAR | 4.1   | 4.0   | 3.7   | +11                          | 5.43                           | 5.03   | 5.33   | + 2 |     |
|                           |     |       |       |       |                              | Broiler Feed Cost (\$ per ton) | 177    | 175    | 181 | - 2 |

## FLORIDA

| Personal Income           |       |         |         |         | Agriculture                  |                                |       |       |     |     |
|---------------------------|-------|---------|---------|---------|------------------------------|--------------------------------|-------|-------|-----|-----|
| (\$ bil. - SAAR)          |       |         |         |         | Farm Cash Receipts - \$ mil. |                                |       |       |     |     |
|                           |       |         |         |         | Dates: MAR., MAR.            |                                |       |       |     |     |
| Taxable Sales - \$ bil.   | Q4    | 169.1   | 168.1   | 159.9   | + 6                          |                                |       |       |     |     |
| Plane Pass. Arr. (thous.) | APR   | 3,263.5 | 3,513.0 | 2,699.9 | +21                          | 1,537                          |       | 1,554 | - 1 |     |
| Petroleum Prod. (thous.)  | MAY   | 23.0    | 21.0    | 31.0    | -26                          | 2,401                          | 2,402 | 2,349 | + 2 |     |
| Consumer Price Index      |       |         |         |         |                              | 81.10                          | 76.30 | 55.90 | +45 |     |
| 1977=100                  | MIAMI | 179.1   | 178.4   | 173.0   | + 4                          | 29.00                          | 27.00 | 29.00 | 0   |     |
| Kilowatt Hours - mils.    | MAR   | 8.3     | 8.8     | 8.1     | + 2                          | 5.43                           | 5.03  | 5.33  | + 2 |     |
|                           |       |         |         |         |                              | Broiler Feed Cost (\$ per ton) | 177   | 175   | 181 | - 2 |

## GEORGIA

| Personal Income           |         |         |         |         | Agriculture                  |                                |        |        |     |     |
|---------------------------|---------|---------|---------|---------|------------------------------|--------------------------------|--------|--------|-----|-----|
| (\$ bil. - SAAR)          |         |         |         |         | Farm Cash Receipts - \$ mil. |                                |        |        |     |     |
|                           |         |         |         |         | Dates: MAR., MAR.            |                                |        |        |     |     |
| Taxable Sales - \$ bil.   | Q4      | 82.0    | 81.3    | 77.3    | + 6                          |                                |        |        |     |     |
| Plane Pass. Arr. (thous.) | APR     | 2,190.5 | 2,308.8 | 1,869.8 | +17                          | 585                            |        | 607    | - 4 |     |
| Petroleum Prod. (thous.)  |         | N.A.    | N.A.    | N.A.    |                              | 15,178                         | 15,169 | 14,230 | + 7 |     |
| Consumer Price Index      |         |         |         |         |                              | 72.80                          | 70.20  | 49.80  | +46 |     |
| 1967=100                  | ATLANTA | 342.2   | 339.9   | 335.3   | + 2                          | 28.00                          | 27.00  | 29.00  | - 3 |     |
| Kilowatt Hours - mils.    | MAR     | 5.0     | 4.9     | 4.8     | + 4                          | 5.31                           | 5.04   | 5.20   | + 2 |     |
|                           |         |         |         |         |                              | Broiler Feed Cost (\$ per ton) | 177    | 175    | 181 | - 2 |

## LOUISIANA

| Personal Income           |     |         |         |         | Agriculture                  |                                |       |       |     |     |
|---------------------------|-----|---------|---------|---------|------------------------------|--------------------------------|-------|-------|-----|-----|
| (\$ bil. - SAAR)          |     |         |         |         | Farm Cash Receipts - \$ mil. |                                |       |       |     |     |
|                           |     |         |         |         | Dates: MAR., MAR.            |                                |       |       |     |     |
| Taxable Sales - \$ bil.   | Q4  | 50.4    | 50.5    | 50.3    | + 0                          |                                |       |       |     |     |
| Plane Pass. Arr. (thous.) | APR | 372.2   | 382.4   | 296.0   | +26                          | 256                            |       | 308   | -17 |     |
| Petroleum Prod. (thous.)  | MAY | 1,268.0 | 1,267.5 | 1,240.0 | + 2                          | N.A.                           |       | N.A.  |     |     |
| Consumer Price Index      |     |         |         |         |                              | 73.50                          | 72.50 | 56.40 | +30 |     |
| 1967=100                  |     | N.A.    | N.A.    | N.A.    |                              | 29.80                          | 30.10 | 31.00 | - 4 |     |
| Kilowatt Hours - mils.    | MAR | 4.1     | 4.3     | 4.0     | + 2                          | 5.32                           | 5.10  | 5.30  | + 0 |     |
|                           |     |         |         |         |                              | Broiler Feed Cost (\$ per ton) | 159   | 147   | 181 | -12 |

## MISSISSIPPI

| Personal Income           |     |      |      |      | Agriculture                  |                                |       |       |     |     |
|---------------------------|-----|------|------|------|------------------------------|--------------------------------|-------|-------|-----|-----|
| (\$ bil. - SAAR)          |     |      |      |      | Farm Cash Receipts - \$ mil. |                                |       |       |     |     |
|                           |     |      |      |      | Dates: MAR., MAR.            |                                |       |       |     |     |
| Taxable Sales - \$ bil.   | Q4  | 25.3 | 25.1 | 24.6 | + 3                          |                                |       |       |     |     |
| Plane Pass. Arr. (thous.) | APR | 46.1 | 50.1 | 35.7 | +29                          | 307                            |       | 438   | -30 |     |
| Petroleum Prod. (thous.)  | MAY | 79.0 | 79.0 | 84.0 | - 6                          | 7,073                          | 7,047 | 6,760 | + 5 |     |
| Consumer Price Index      |     |      |      |      |                              | 74.00                          | 74.20 | 53.30 | +39 |     |
| 1967=100                  |     | N.A. | N.A. | N.A. |                              | 29.80                          | 30.10 | 31.20 | - 4 |     |
| Kilowatt Hours - mils.    | MAR | 1.9  | 2.1  | 1.9  | 0                            | 5.38                           | 5.05  | 5.29  | + 2 |     |
|                           |     |      |      |      |                              | Broiler Feed Cost (\$ per ton) | 159   | 147   | 181 | -12 |

## TENNESSEE

| Personal Income           |     |       |       |       | Agriculture                  |                                |       |       |     |     |
|---------------------------|-----|-------|-------|-------|------------------------------|--------------------------------|-------|-------|-----|-----|
| (\$ bil. - SAAR)          |     |       |       |       | Farm Cash Receipts - \$ mil. |                                |       |       |     |     |
|                           |     |       |       |       | Dates: MAR., MAR.            |                                |       |       |     |     |
| Taxable Sales - \$ bil.   | Q4  | 58.1  | 57.2  | 54.8  | + 6                          |                                |       |       |     |     |
| Plane Pass. Arr. (thous.) | APR | 394.9 | 378.1 | 232.6 | +70                          | 397                            |       | 418   | - 5 |     |
| Petroleum Prod. (thous.)  |     | N.A.  | N.A.  | N.A.  |                              | N.A.                           |       | N.A.  |     |     |
| Consumer Price Index      |     |       |       |       |                              | 71.80                          | 70.50 | 51.40 | +40 |     |
| 1967=100                  |     | N.A.  | N.A.  | N.A.  |                              | 29.10                          | 30.00 | 27.50 | + 6 |     |
| Kilowatt Hours - mils.    | MAR | 5.6   | 6.1   | 5.5   | + 2                          | 5.41                           | 5.01  | 5.39  | + 0 |     |
|                           |     |       |       |       |                              | Broiler Feed Cost (\$ per ton) | 205   | 187   | 189 | + 8 |

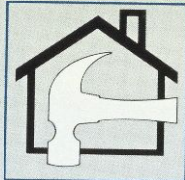
**NOTES:** Personal Income data supplied by U. S. Department of Commerce. Taxable Sales are reported as a 12-month cumulative total. Plane Passenger Arrivals are collected from 26 airports. Petroleum Production data supplied by U. S. Bureau of Mines. Consumer Price Index data supplied by Bureau of Labor Statistics. Agriculture data supplied by U. S. Department of Agriculture. Farm Cash Receipts data are reported as cumulative for the calendar year through the month shown. Broiler placements are an average weekly rate. The Southeast data represent the total of the six states. N. A. = not available. The annual percent change calculation is based on most recent data over prior year. R = revised.



# CONSTRUCTION

| 12-month cumulative rate                  |        | MAR 1987 | FEB 1987 | MAR 1986 | ANN. % CHG |  | MAR 1987 | FEB 1987 | MAR 1986 | ANN. % CHG |
|---|--------|----------|----------|----------|------------|--|----------|----------|----------|------------|
| <b>UNITED STATES</b>                      |        |          |          |          |            |  |          |          |          |            |
| Nonresidential Building Permits - \$ Mil. |        |          |          |          |            | Residential Building Permits Value - \$ Mil. |          |          |          |            |
| Total Nonresidential                      | 47,020 | 46,693   | 64,743   | -27      |            | 96,641                                       | 95,114   | 85,282   | +13      |            |
| Industrial Bldgs.                         | 8,424  | 8,445    | 8,775    | -4       |            | Residential Permits - Thous.                 |          |          |          |            |
| Offices                                   | 13,599 | 13,644   | 16,487   | -18      |            | Single-family units                          |          |          |          |            |
| Stores                                    | 12,014 | 11,875   | 11,540   | +4       |            | 1,088.8                                      | 1,075.6  | 973.3    | +12      |            |
| Hospitals                                 | 2,571  | 2,481    | 2,157    | +19      |            | Multifamily units                            |          |          |          |            |
| Schools                                   | 1,154  | 1,170    | 1,087    | +6       |            | 626.8  | 639.5    | 782.8    | -20      |            |
| Total Building Permits Value - \$ Mil.    |        |          |          |          |            | 143,661                                      | 141,807  | 150,025  | -4       |            |
| <b>SOUTHEAST</b>                          |        |          |          |          |            |  |          |          |          |            |
| Nonresidential Building Permits - \$ Mil. |        |          |          |          |            | Residential Building Permits Value - \$ Mil. |          |          |          |            |
| Total Nonresidential                      | 7,865  | 7,798    | 10,906   | -28      |            | 15,763                                       | 15,652   | 15,414   | +2       |            |
| Industrial Bldgs.                         | 1,120  | 1,109    | 1,192    | -6       |            | Residential Permits - Thous.                 |          |          |          |            |
| Offices                                   | 1,858  | 1,925    | 2,638    | -30      |            | Single-family units                          |          |          |          |            |
| Stores                                    | 2,395  | 2,337    | 2,291    | +5       |            | 207.2  | 205.2    | 200.6    | +3       |            |
| Hospitals                                 | 472    | 442      | 381      | +24      |            | Multifamily units                            |          |          |          |            |
| Schools                                   | 151    | 161      | 154      | -2       |            | 126.1  | 129.5    | 167.3    | -25      |            |
| Total Building Permits Value - \$ Mil.    |        |          |          |          |            | 23,628                                       | 23,450   | 26,320   | -10      |            |
| <b>ALABAMA</b>                            |        |          |          |          |            |  |          |          |          |            |
| Nonresidential Building Permits - \$ Mil. |        |          |          |          |            | Residential Building Permits Value - \$ Mil. |          |          |          |            |
| Total Nonresidential                      | 588    | 614      | 635      | -7       |            | 671  | 682      | 589      | +14      |            |
| Industrial Bldgs.                         | 65     | 75       | 65       | 0        |            | Residential Permits - Thous.                 |          |          |          |            |
| Offices                                   | 176    | 176      | 155      | +14      |            | Single-family units                          |          |          |          |            |
| Stores                                    | 182    | 193      | 163      | +12      |            | 11.5   | 11.3     | 9.6      | +20      |            |
| Hospitals                                 | 19     | 24       | 16       | +19      |            | Multifamily units                            |          |          |          |            |
| Schools                                   | 16     | 18       | 17       | -6       |            | 6.5  | 7.8      | 8.9      | -27      |            |
| Total Building Permits Value - \$ Mil.    |        |          |          |          |            | 1,259  | 1,296    | 1,224    | +3       |            |
| <b>FLORIDA</b>                            |        |          |          |          |            |  |          |          |          |            |
| Nonresidential Building Permits - \$ Mil. |        |          |          |          |            | Residential Building Permits Value - \$ Mil. |          |          |          |            |
| Total Nonresidential                      | 3,854  | 3,771    | 5,604    | -31      |            | 8,630  | 8,501    | 8,715    | -1       |            |
| Industrial Bldgs.                         | 418    | 421      | 492      | -15      |            | Residential Permits - Thous.                 |          |          |          |            |
| Offices                                   | 882    | 906      | 1,194    | -26      |            | Single-family units                          |          |          |          |            |
| Stores                                    | 1,155  | 1,115    | 1,228    | -6       |            | 107.7  | 106.2    | 105.9    | +2       |            |
| Hospitals                                 | 312    | 281      | 218      | +43      |            | Multifamily units                            |          |          |          |            |
| Schools                                   | 37     | 39       | 49       | -24      |            | 80.9   | 80.4     | 101.0    | -20      |            |
| Total Building Permits Value - \$ Mil.    |        |          |          |          |            | 12,484                                       | 12,272   | 14,319   | -13      |            |
| <b>GEORGIA</b>                            |        |          |          |          |            |  |          |          |          |            |
| Nonresidential Building Permits - \$ Mil. |        |          |          |          |            | Residential Building Permits Value - \$ Mil. |          |          |          |            |
| Total Nonresidential                      | 1,761  | 1,761    | 2,029    | -13      |            | 3,724  | 3,739    | 3,411    | +9       |            |
| Industrial Bldgs.                         | 350    | 334      | 332      | +5       |            | Residential Permits - Thous.                 |          |          |          |            |
| Offices                                   | 407    | 439      | 556      | -27      |            | Single-family units                          |          |          |          |            |
| Stores                                    | 541    | 518      | 352      | +54      |            | 51.2   | 51.1     | 48.8     | +5       |            |
| Hospitals                                 | 20     | 21       | 39       | -49      |            | Multifamily units                            |          |          |          |            |
| Schools                                   | 40     | 44       | 21       | +90      |            | 21.7   | 23.4     | 28.4     | -24      |            |
| Total Building Permits Value - \$ Mil.    |        |          |          |          |            | 5,485  | 5,500    | 5,440    | +1       |            |
| <b>LOUISIANA</b>                          |        |          |          |          |            |  |          |          |          |            |
| Nonresidential Building Permits - \$ Mil. |        |          |          |          |            | Residential Building Permits Value - \$ Mil. |          |          |          |            |
| Total Nonresidential                      | 459    | 467      | 1,133    | -59      |            | 521  | 537      | 733      | -29      |            |
| Industrial Bldgs.                         | 40     | 43       | 49       | -18      |            | Residential Permits - Thous.                 |          |          |          |            |
| Offices                                   | 102    | 104      | 405      | -75      |            | Single-family units                          |          |          |          |            |
| Stores                                    | 135    | 141      | 230      | -41      |            | 7.8  | 8.0      | 11.2     | -30      |            |
| Hospitals                                 | 39     | 36       | 46       | -15      |            | Multifamily units                            |          |          |          |            |
| Schools                                   | 41     | 42       | 46       | -11      |            | 2.0  | 2.3      | 5.5      | -64      |            |
| Total Building Permits Value - \$ Mil.    |        |          |          |          |            | 980  | 1004     | 1,865    | -47      |            |
| <b>MISSISSIPPI</b>                        |        |          |          |          |            |  |          |          |          |            |
| Nonresidential Building Permits - \$ Mil. |        |          |          |          |            | Residential Building Permits Value - \$ Mil. |          |          |          |            |
| Total Nonresidential                      | 234    | 245      | 312      | -25      |            | 328  | 330      | 351      | -7       |            |
| Industrial Bldgs.                         | 23     | 23       | 32       | -28      |            | Residential Permits - Thous.                 |          |          |          |            |
| Offices                                   | 56     | 62       | 67       | -16      |            | Single-family units                          |          |          |          |            |
| Stores                                    | 78     | 85       | 74       | +5       |            | 5.4  | 5.4      | 5.9      | -8       |            |
| Hospitals                                 | 23     | 22       | 18       | +28      |            | Multifamily units                            |          |          |          |            |
| Schools                                   | 7      | 7        | 7        | 0        |            | 1.8  | 2.0      | 2.9      | -38      |            |
| Total Building Permits Value - \$ Mil.    |        |          |          |          |            | 561  | 575      | 662      | -15      |            |
| <b>TENNESSEE</b>                          |        |          |          |          |            |  |          |          |          |            |
| Nonresidential Building Permits - \$ Mil. |        |          |          |          |            | Residential Building Permits Value - \$ Mil. |          |          |          |            |
| Total Nonresidential                      | 970    | 940      | 1,194    | -19      |            | 1,889  | 1,864    | 1,615    | +17      |            |
| Industrial Bldgs.                         | 224    | 212      | 223      | +0       |            | Residential Permits - Thous.                 |          |          |          |            |
| Offices                                   | 235    | 239      | 261      | -10      |            | Single-family units                          |          |          |          |            |
| Stores                                    | 304    | 286      | 245      | +24      |            | 23.5   | 23.2     | 19.4     | +21      |            |
| Hospitals                                 | 59     | 59       | 45       | +31      |            | Multifamily units                            |          |          |          |            |
| Schools                                   | 9      | 9        | 14       | -36      |            | 13.2   | 13.6     | 20.8     | -37      |            |
| Total Building Permits Value - \$ Mil.    |        |          |          |          |            | 2,859  | 2,804    | 2,809    | +2       |            |

NOTES: Data supplied by the U.S. Bureau of the Census, Housing Units Authorized by Building Permits and Public Contracts, C-40. Nonresidential data excludes the cost of construction for publicly owned buildings. The southeast data represents the total of the six states.



# CONSTRUCTION

| 12-month cumulative rate                  |        | APR<br>1987 | MAR<br>1987 | APR<br>1986 | ANN.<br>%<br>CHG                             |         |         | APR<br>1987 | MAR<br>1987 | APR<br>1986 | ANN.<br>%<br>CHG |
|---|--------|-------------|-------------|-------------|--|---------|---------|-------------|-------------|-------------|------------------|
| <b>UNITED STATES</b>                      |        |             |             |             |  |         |         |             |             |             |                  |
| Nonresidential Building Permits - \$ Mil. |        |             |             |             |  |         |         |             |             |             |                  |
| Total Nonresidential                      | 47,290 | 47,020      | 62,887      | -25         | Residential Building Permits Value - \$ Mil. | 96,859  | 96,641  | 87,135      | +11         |             |                  |
| Industrial Bldgs.                         | 8,374  | 8,424       | 8,776       | -5          | Residential Permits - Thous.                 |         |         |             |             |             |                  |
| Offices                                   | 13,849 | 13,599      | 16,058      | -14         | Single-family units                          | 1,082.6 | 1,088.8 | 992.9       | +9          |             |                  |
| Stores                                    | 11,991 | 12,014      | 11,619      | +3          | Multifamily units                            | 610.0   | 626.8   | 783.0       | -22         |             |                  |
| Hospitals                                 | 2,513  | 2,571       | 2,302       | +9          | Total Building Permits Value - \$ Mil.       | 144,149 | 143,661 | 150,022     | -4          |             |                  |
| Schools                                   | 1,180  | 1,154       | 1,104       | +7          |  |         |         |             |             |             |                  |
| <b>SOUTHEAST</b>                          |        |             |             |             |  |         |         |             |             |             |                  |
| Nonresidential Building Permits - \$ Mil. |        |             |             |             |  |         |         |             |             |             |                  |
| Total Nonresidential                      | 7,866  | 7,865       | 10,632      | -26         | Residential Building Permits Value - \$ Mil. | 15,797  | 15,763  | 15,537      | +2          |             |                  |
| Industrial Bldgs.                         | 1,125  | 1,120       | 1,173       | -4          | Residential Permits - Thous.                 |         |         |             |             |             |                  |
| Offices                                   | 1,883  | 1,858       | 2,512       | -25         | Single-family units                          | 206.2   | 207.2   | 203.1       | +1          |             |                  |
| Stores                                    | 2,397  | 2,395       | 2,339       | +2          | Multifamily units                            | 123.8   | 126.1   | 162.3       | -23         |             |                  |
| Hospitals                                 | 445    | 472         | 390         | +14         | Total Building Permits Value - \$ Mil.       | 23,663  | 23,628  | 26,170      | -10         |             |                  |
| Schools                                   | 152    | 151         | 159         | -4          |  |         |         |             |             |             |                  |
| <b>ALABAMA</b>                            |        |             |             |             |  |         |         |             |             |             |                  |
| Nonresidential Building Permits - \$ Mil. |        |             |             |             |  |         |         |             |             |             |                  |
| Total Nonresidential                      | 561    | 588         | 649         | -14         | Residential Building Permits Value - \$ Mil. | 678     | 671     | 595         | +14         |             |                  |
| Industrial Bldgs.                         | 72     | 65          | 57          | +26         | Residential Permits - Thous.                 |         |         |             |             |             |                  |
| Offices                                   | 164    | 176         | 167         | -2          | Single-family units                          | 11.2    | 11.5    | 9.9         | +13         |             |                  |
| Stores                                    | 174    | 182         | 169         | +3          | Multifamily units                            | 6.7     | 6.5     | 8.5         | -21         |             |                  |
| Hospitals                                 | 17     | 19          | 18          | -6          | Total Building Permits Value - \$ Mil.       | 1,239   | 1,259   | 1,244       | -0          |             |                  |
| Schools                                   | 21     | 16          | 17          | +24         |  |         |         |             |             |             |                  |
| <b>FLORIDA</b>                            |        |             |             |             |  |         |         |             |             |             |                  |
| Nonresidential Building Permits - \$ Mil. |        |             |             |             |  |         |         |             |             |             |                  |
| Total Nonresidential                      | 3,852  | 3,854       | 5,455       | -29         | Residential Building Permits Value - \$ Mil. | 8,733   | 8,630   | 8,711       | +0          |             |                  |
| Industrial Bldgs.                         | 407    | 418         | 469         | -13         | Residential Permits - Thous.                 |         |         |             |             |             |                  |
| Offices                                   | 891    | 882         | 1,145       | -22         | Single-family units                          | 108.0   | 107.7   | 106.6       | +1          |             |                  |
| Stores                                    | 1,162  | 1,155       | 1,238       | -6          | Multifamily units                            | 80.0    | 80.9    | 97.1        | -18         |             |                  |
| Hospitals                                 | 314    | 312         | 213         | +47         | Total Building Permits Value - \$ Mil.       | 12,585  | 12,484  | 14,167      | -11         |             |                  |
| Schools                                   | 32     | 37          | 54          | -41         |  |         |         |             |             |             |                  |
| <b>GEORGIA</b>                            |        |             |             |             |  |         |         |             |             |             |                  |
| Nonresidential Building Permits - \$ Mil. |        |             |             |             |  |         |         |             |             |             |                  |
| Total Nonresidential                      | 1,752  | 1,761       | 2,008       | -13         | Residential Building Permits Value - \$ Mil. | 3,682   | 3,724   | 3,480       | +6          |             |                  |
| Industrial Bldgs.                         | 350    | 350         | 349         | +0          | Residential Permits - Thous.                 |         |         |             |             |             |                  |
| Offices                                   | 411    | 407         | 528         | -22         | Single-family units                          | 50.7    | 51.2    | 49.6        | +2          |             |                  |
| Stores                                    | 532    | 541         | 382         | +39         | Multifamily units                            | 20.6    | 21.7    | 28.3        | -27         |             |                  |
| Hospitals                                 | 21     | 21          | 36          | -42         | Total Building Permits Value - \$ Mil.       | 5,434   | 5,485   | 5,488       | -1          |             |                  |
| Schools                                   | 42     | 40          | 21          | +99         |  |         |         |             |             |             |                  |
| <b>LOUISIANA</b>                          |        |             |             |             |  |         |         |             |             |             |                  |
| Nonresidential Building Permits - \$ Mil. |        |             |             |             |  |         |         |             |             |             |                  |
| Total Nonresidential                      | 448    | 459         | 1,051       | -57         | Residential Building Permits Value - \$ Mil. | 493     | 521     | 728         | -32         |             |                  |
| Industrial Bldgs.                         | 39     | 40          | 39          | 0           | Residential Permits - Thous.                 |         |         |             |             |             |                  |
| Offices                                   | 91     | 102         | 376         | -76         | Single-family units                          | 7.5     | 7.8     | 11.0        | -32         |             |                  |
| Stores                                    | 130    | 135         | 222         | -41         | Multifamily units                            | 1.8     | 2.0     | 5.3         | -66         |             |                  |
| Hospitals                                 | 36     | 39          | 35          | +3          | Total Building Permits Value - \$ Mil.       | 941     | 981     | 1,778       | -47         |             |                  |
| Schools                                   | 41     | 41          | 45          | -9          |  |         |         |             |             |             |                  |
| <b>MISSISSIPPI</b>                        |        |             |             |             |  |         |         |             |             |             |                  |
| Nonresidential Building Permits - \$ Mil. |        |             |             |             |  |         |         |             |             |             |                  |
| Total Nonresidential                      | 240    | 234         | 307         | -22         | Residential Building Permits Value - \$ Mil. | 323     | 328     | 352         | -8          |             |                  |
| Industrial Bldgs.                         | 21     | 23          | 32          | -34         | Residential Permits - Thous.                 |         |         |             |             |             |                  |
| Offices                                   | 59     | 56          | 65          | -9          | Single-family units                          | 5.4     | 5.4     | 5.8         | -7          |             |                  |
| Stores                                    | 81     | 78          | 74          | +9          | Multifamily units                            | 1.6     | 1.8     | 2.7         | -41         |             |                  |
| Hospitals                                 | 24     | 23          | 17          | +41         | Total Building Permits Value - \$ Mil.       | 563     | 561     | 659         | -15         |             |                  |
| Schools                                   | 8      | 7           | 7           | +14         |  |         |         |             |             |             |                  |
| <b>TENNESSEE</b>                          |        |             |             |             |  |         |         |             |             |             |                  |
| Nonresidential Building Permits - \$ Mil. |        |             |             |             |  |         |         |             |             |             |                  |
| Total Nonresidential                      | 1,012  | 970         | 1,162       | -13         | Residential Building Permits Value - \$ Mil. | 1,889   | 1,889   | 1,672       | +13         |             |                  |
| Industrial Bldgs.                         | 235    | 224         | 226         | +4          | Residential Permits - Thous.                 |         |         |             |             |             |                  |
| Offices                                   | 267    | 235         | 232         | +15         | Single-family units                          | 23.4    | 23.5    | 20.1        | +16         |             |                  |
| Stores                                    | 317    | 304         | 253         | +25         | Multifamily units                            | 13.1    | 13.2    | 20.4        | -36         |             |                  |
| Hospitals                                 | 33     | 59          | 70          | -53         | Total Building Permits Value - \$ Mil.       | 2,901   | 2,859   | 2,834       | +2          |             |                  |
| Schools                                   | 7      | 9           | 15          | -53         |  |         |         |             |             |             |                  |

NOTES: Data supplied by the U.S. Bureau of the Census, Housing Units Authorized by Building Permits and Public Contracts, C-40. Nonresidential data excludes the cost of construction for publicly owned buildings. The southeast data represents the total of the six states.

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Address Correction Requested

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